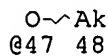
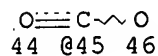
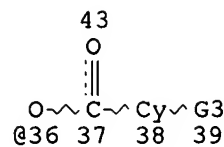
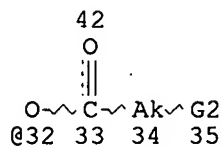
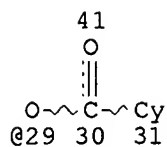
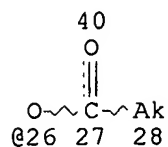
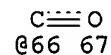
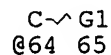
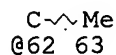
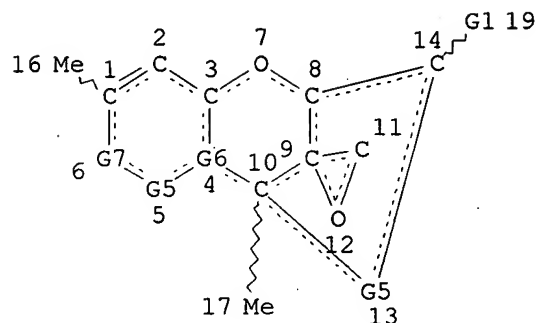
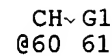
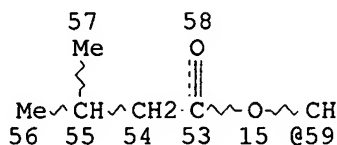


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L42

STR



Ak @49



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VAR G2=OH/45  
VAR G3=49/47/OH/X/45  
VAR G5=CH2/60  
VAR G6=62/64  
VAR G7=66/59

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CONNECT IS E1 RC AT 28  
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DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 57

## STEREO ATTRIBUTES: NONE

L44 4 SEA FILE=REGISTRY SSS FUL L42

L45 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L44

Considered  
11/14/03  
MFC

=> d 145 ibib abs hitstr 1-9

L45 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:393697 HCAPLUS

DOCUMENT NUMBER: 139:270470

TITLE: Cancer preventive potential of trichothecenes from *Trichothecium roseum*

AUTHOR(S): Konishi, Kazuhide; Iida, Akira; Kaneko, Masafumi; Tomioka, Kiyoshi; Tokuda, Harukuni; Nishino, Hoyoku; Kumeda, Yuko

CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyoto University, Sakyo-ku, Kyoto, 606-8501, Japan

SOURCE: Bioorganic & Medicinal Chemistry (2003), 11(12), 2511-2518

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bioassay-guided sepn. of exts. from the culture broth and mycelium of the fungus *Trichothecium roseum*, aiming at the discovery for cancer preventive agents, resulted in the isolation of three new trichothecene sesquiterpenes, trichothecinols A-C (1-3) together with three known analogs, trichothecin (4), trichodermol (5) and trichothecolone (6). Compds. 1-6 exhibited remarkably potent inhibition against Epstein-Barr virus early antigen (EBV-EA) activation induced by the tumor promoter, 12-O-tetradecanoylphorbol-13-acetate (TPA). Further compd. 1 strongly inhibited TPA-induced tumor promotion on mouse skin initiated with 7,12-dimethylbenz[a]anthracene (DMBA) in two-stage carcinogenesis tests. These results suggest that compd. 1 (trichothecinol A) might be a valuable lead for further evaluation as a cancer preventive agent. In addn. to their cancer preventive activity, compd. 2 (trichothecinol B) was found to show modest antifungal activity against *Cryptococcus albidus* and *Saccharomyces cerevisiae*.

IT 185334-08-1P, Trichothecinol A

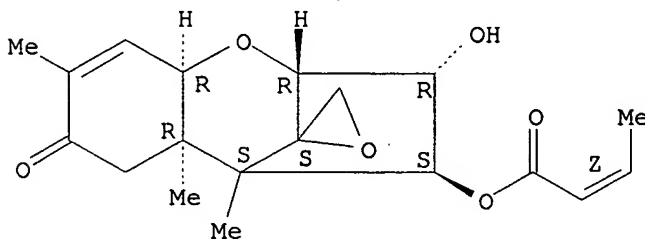
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (cancer preventive potential of trichothecenes from *Trichothecium roseum*)

RN 185334-08-1 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3-hydroxy-4-[[ (2Z)-1-oxo-2-butenyl]oxy]-, (3.alpha.,4.beta.)- (9CI) (CA INDEX NAME)

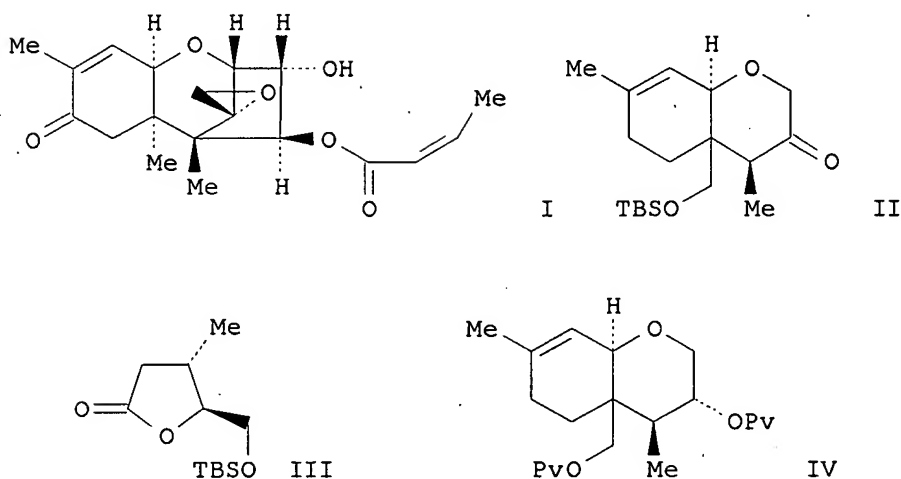
Absolute stereochemistry. Rotation (+).

Double bond geometry as shown.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:102040 HCAPLUS  
 DOCUMENT NUMBER: 134:353186  
 TITLE: Synthetic studies toward tumor promoting trichothecinols  
 AUTHOR(S): Iida, Akira; Konishi, Kazuhide; Tomioka, Kiyoshi; Tokuda, Harukuni; Nishino, Hoyoku  
 CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyoto University, Japan  
 SOURCE: Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (2000), 42nd, 757-762  
 CODEN: TYKYDS  
 PUBLISHER: Nippon Kagakkai  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 GI



AB Trichothecinol A (TA) is a potent tumor promoting trichothecene isolated from the fungus *Trichothecium roseum*. In order to clarify its property as a tumor promoter, the authors examd. biol. activities of TA (I). TA was neg. to protein kinase C activation. Furthermore, TA was also neg. to ornithine decarboxylase induction in mouse skin. Therefore, TA is classified as a non-TPA type tumor promoter that is close to thapsigargin. Further investigation showed that TA induces a morphol. change of the nucleus in the Raji cell and that TA causes no point mutation in a Ha-ras gene. An extensive structure-activity relationship study is required to understand the mode of action of TA as a tumor promoter. This allowed us to start synthetic studies toward trichothecenes in addn. to biochem. research on TA. Thus the authors synthesized the optically pure cis-AB ring (II), which is the known synthetic intermediate of calonecetrin, a natural trichothecene that can be transformed into trichothecinols. The authors' synthetic approach to the cis-AB ring II originated with a chiral lactone (III) derived from D-mannitol. The successful scheme involved

the formation of the A ring by the ring closing olefin metathesis reaction. The second ring can be appended by a Lewis acid catalyzed deprotection of the methoxymethyl group and a concomitant stereoselective cyclization reaction to the desired cis-fused tetrahydrochromane skeleton that corresponds to the trichothecene AB ring system. This bicyclic intermediate (IV) was transformed into the known intermediate II, resulting in the success of a formal total synthesis of the trichothecene.

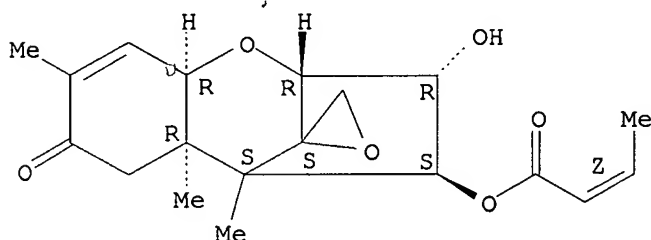
IT 185334-08-1P, Trichothecinol A

RL: PNU (Preparation, unclassified); PREP (Preparation)  
(synthetic studies toward tumor promoting trichothecinols)

RN 185334-08-1 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3-hydroxy-4-[(2Z)-1-oxo-2-butenyl]oxy]-, (3.alpha.,4.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



L45 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:771178 HCAPLUS

DOCUMENT NUMBER: 132:119892

TITLE: New Trichothecenes Isolated from *Holarrhena floribunda*  
AUTHOR(S): Loukaci, Ali; Kayser, Oliver; Bindseil, K.-U.; Siems, Karsten; Frevert, J.; Abreu, Pedro M.

CORPORATE SOURCE: Departamento de Quimica Centro de Quimica Fina e Biotecnologia, FCT-UNL, Caparica, 2825-114, Port.  
SOURCE: Journal of Natural Products (2000), 63(1), 52-56  
CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bioassay-guided fractionation of an ext. of *Holarrhena floribunda* stem, has led to the isolation of new trichothecenes, 8-dihydrotrichothecinol A (I), loukacinol A, and loukacinol B, and the known compds., trichothecolone, trichothecin, trichothecinol A (II), rosenonolactone, 6.beta.-hydroxyrosenonolactone (III), and rosololactone. The structures were detd. by spectral and chem. methods, and abs. configurations were established by a modified Horeau's method using HPLC. Compds. I and II exhibited significant cytotoxicity against several human tumor cell lines, whereas compd. III showed moderate and weak antileishmanial activity toward extracellular and intracellular *Leishmania donovani*, resp.

IT 185334-08-1P, Trichothecinol A

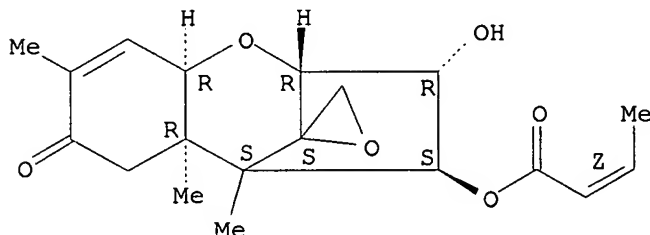
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(trichothecenes from *Holarrhena floribunda*)



RN 185334-08-1 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3-hydroxy-4-[[ (2Z)-1-oxo-2-butenyl]oxy]-  
, (3.alpha.,4.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:282409 HCAPLUS

DOCUMENT NUMBER: 131:40846

TITLE: A novel tumor promoter, trichothecinol A

AUTHOR(S): Iida, A.; Konishi, K.; Tomioka, K.; Tokuda, H.;  
Nishino, H.CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyoto  
University, Kyoto, JapanSOURCE: Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1997),  
39th, 157-162  
CODEN: TYKYDS

PUBLISHER: Nippon Kagakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Three novel trichothecene sesquiterpenes, trichothecinols A (I), B and C were isolated from the fungus *Trichothecium roseum* (TMI-32358) together with some known analogs such as trichothecin. They showed inhibitory effect on Epstein-Barr virus early antigen (EBV-EA) activation induced by the tumor promoter 12-O-tetradecanoylphorbol 13-acetate (TPA) and thus were classified as anti-tumor promoters in vitro. We focused on the potent activity of I and further examd. its inhibitory effect on the tumor promotion in mouse skin in vivo. Surprisingly, while I reduced both the rate of papilloma-bearing mice and the no. of papillomas per mouse in the presence of TPA, I itself enhanced the tumor promotion in the absence of TPA and induced the formation of papillomas. In addn., malignant conversion of papillomas to carcinomas was caused after 20 wk without I. On the other hand, I did not enhance the tumor promotion in vitro in the absence of TPA at all. Accordingly, I was indicated to be a new class of tumor promoter that can be distinguished from TPA and teleocidin. In order to clarify the peculiar action of I in the tumor promotion, a structure-activity relationship was investigated with the natural products and compds. derived from I and trichothecin. In anti-tumor promoting effect in vitro, it was found that the presence of the isocrotonyl ester and conjugated ketone was most important for increasing the activity. The presence of the 3-hydroxyl group was also effective when the ketone carbonyl group was reduced. Interestingly trichothecin did not enhance the tumor promotion neither in vitro nor in vivo at all although the

structure of 4 differs from 1 only in the lack of 3-hydroxyl group and its antitumor promoting activity in vitro was comparable to that of I. Therefore, it was strongly suggested that the 3-hydroxyl group plays a crucial role in the tumor promotion.

IT 185334-08-1, Trichothecinol A

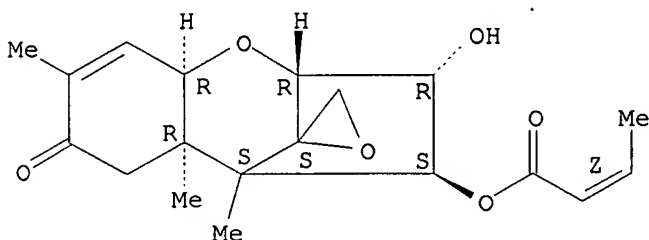
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(novel tumor promoter trichothecinol A)

RN 185334-08-1 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3-hydroxy-4-[[ (2Z)-1-oxo-2-butenyl]oxy]-, (3.alpha.,4.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



L45 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:433383 HCAPLUS

DOCUMENT NUMBER: 127:49311

TITLE: Herbicidal F-11073 manufacture with Acremonium

INVENTOR(S): Otsuka, Takeo; Okamoto, Yoshihiro; Hosoya, Takeshi

PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

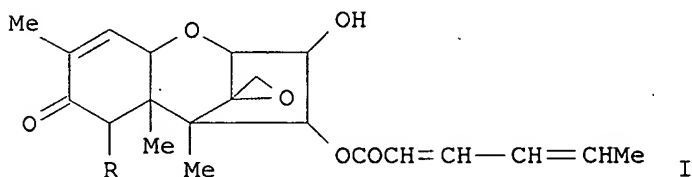
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09118682	A2	19970506	JP 1995-277255	19951025
PRIORITY APPLN. INFO.:			JP 1995-277255	19951025

GI



AB F-11073-1 (I) and F-11073-2 (II) are manufd. by culturing Acremonium sp.

SANK20. These herbicides have miticidal and bactericidal activities. Shake-culture of *Acremonium* sp. in a medium of glycerin, malt ext., yeast ext., etc., and recovery of I and II from the broth by extn. and chromatog. were shown. The physiol. and morphol. characteristics of *Acremonium* sp. and physicochem. characteristics of these herbicides were also given.

IT 191092-27-0P, F 11073-1 191092-28-1P, F 11073-2

RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(herbicidal F-11073 manuf. with *Acremonium*)

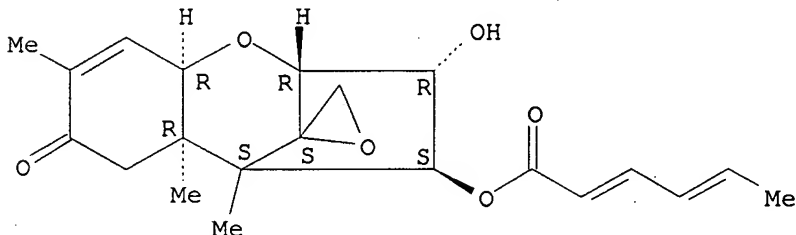
RN 191092-27-0 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3-hydroxy-4-[(1-oxo-2,4-hexadienyl)oxy]-, (3.alpha.,4.beta.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

Currently available stereo shown.



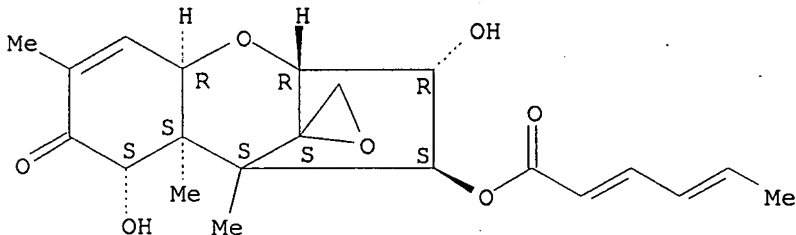
RN 191092-28-1 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3,7-dihydroxy-4-[(1-oxo-2,4-hexadienyl)oxy]-, (3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

Currently available stereo shown.



L45 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:10455 HCAPLUS

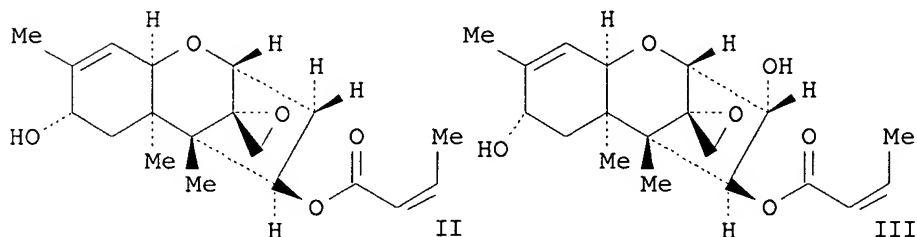
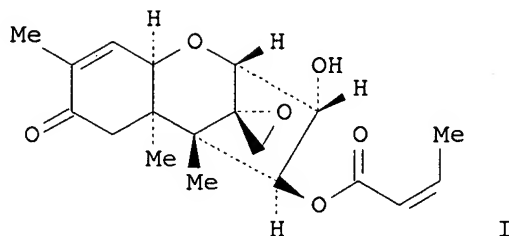
DOCUMENT NUMBER: 126:72359

TITLE: Trichothecinols A, B and C, potent anti-tumor promoting sesquiterpenoids from the fungus *Trichothecium roseum*

AUTHOR(S): Iida, Akira; Konishi, Kazuhide; Kubo, Hiroki; Tomioka, Kiyoshi; Tokuda, Harukuni; Nishino, Hoyoku

CORPORATE SOURCE: Faculty Pharmaceutical Sciences, Kyoto Univ., Kyoto, 606-01, Japan

SOURCE: Tetrahedron Letters (1996), 37(51), 9219-9220  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Three new trichothecenes, trichothecinols A (I), B (II) and C (III), were isolated from the fungus *Trichothecium roseum* and unambiguously characterized on the basis of spectroscopic and chem. evidence. These compds. exhibited potent inhibitory effects on Epstein-Barr virus early antigen (EBV-EA) activation induced by the tumor promoter 12-O-tetradecanoylphorbol-13-acetate.

IT 185334-08-1, Trichothecinol A

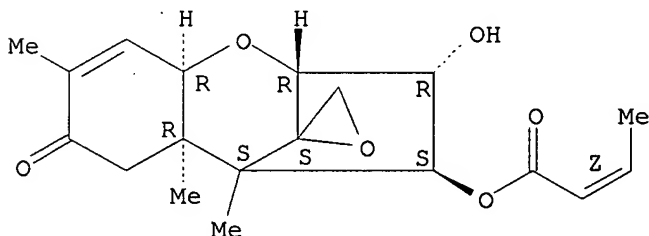
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (potent antitumor-promoting sesquiterpenoids from *Trichothecium roseum*)

RN 185334-08-1 HCAPLUS

CN Trichothec-9-en-8-one, 12,13-epoxy-3-hydroxy-4-[[ (2Z)-1-oxo-2-butenyl]oxy]-, (3.alpha.,4.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as shown.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:131825 HCAPLUS

DOCUMENT NUMBER: 110:131825

TITLE: Toxin-producing potential of some *Fusarium* species from a New Zealand pasture

AUTHOR(S): Lauren, D. R.; Di Menna, M. E.; Greenhalgh, R.;

Miller, J. D.; Neish, G. A.; Burgess, L. W.

CORPORATE SOURCE: Ruakura Agric. Cent., Minist. Agric. Fish., Hamilton, N. Z.

SOURCE: New Zealand Journal of Agricultural Research (1988), 31(2), 219-25

CODEN: NEZFA7; ISSN: 0028-8233

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The isolation and taxonomic characterization of 25 isolates of *Fusarium* species from a New Zealand farm pasture are described. The ability of these isolates to produce mycotoxins both in liq. culture (MYRO and GYEP) and on rice grain culture was assessed. Toxin prodn. was assessed by a combination of chem. anal. methods and by HeLa cell toxicity tests. The toxins produced included zearalenone (by three isolates), zearalenols (one isolate), butenolide (12 isolates), and various trichothecenes (five isolates). An isolate of *F. culmorum* (DAOM 193612) produced .beta.-zearalenol (from rice culture) as the major toxin, whereas trichothecene prodn. was greatest in MYRO culture by one isolate of *F. crookwellense* (DAOM 193611). The major trichothecenes produced by this species were 4,15-diacetoxynivalenol followed by 8-hydroxy- and 7-hydroxyisotrichodermin. Several previously unreported compds. were also isolated. Known trichothecenes produced by other species were deoxynivalenol, 15-acetoxymycesol, and 4,15-diacetoxyscirpenol. The possible impact of these toxins on the well-being of pasture-grazing animals is discussed.

IT 109802-15-5

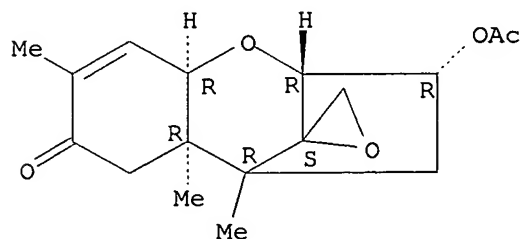
RL: BIOL (Biological study)

(from *Fusarium* species from New Zealand pasture)

RN 109802-15-5 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-, (3.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L45 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:22077 HCAPLUS

DOCUMENT NUMBER: 108:22077

TITLE: A proton nuclear magnetic resonance study of derivatives of 3-hydroxy-12,13-epoxytrichothec-9-enes

AUTHOR(S): Savard, Marc E.; Blackwell, Barbara A.; Greenhalgh, Roy

CORPORATE SOURCE: Plant Res. Cent., Agric. Canada, Ottawa, ON, K1A 0C6, Can.

SOURCE: Canadian Journal of Chemistry (1987), 65(9), 2254-62  
CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal

LANGUAGE: English

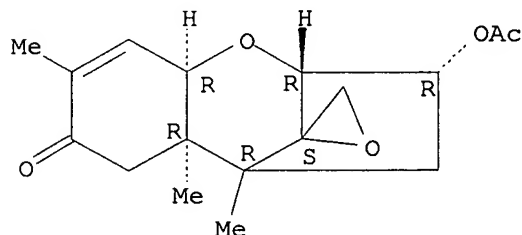
AB The 250-MHz <sup>1</sup>H NMR spectra of 36 natural and synthetic trichothecenes were analyzed and the chem. shifts as well as the vicinal and long-ranging coupling consts. detd. Knowledge of the 16-Me chem. shift enables the substitution pattern of the A ring to be defined. Similarly, oxygenation in the C ring results in easily identifiable resonances. The J<sub>2,3</sub> and J<sub>3,4</sub> values define the configuration of substituents at C-3 and C-4, while the configuration at C-7 and C-8 can be defined by the J<sub>7,8</sub>, J<sub>7.alpha.,11</sub>, and J<sub>7.beta.,15</sub> values. The trichothecene ring system adopts the most stable A-half-chair, B-chair conformation in soln. The correlations obtained permit easy structural detn. of unknown trichothecenes.

IT 109802-15-5  
RL: PRP (Properties)  
(NMR of)

RN 109802-15-5 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-, (3.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L45 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:632731 HCAPLUS

DOCUMENT NUMBER: 107:232731

TITLE: Trichothecenes produced by *Fusarium crookwellense* DAOM 193611

AUTHOR(S): Lauren, Denis R.; Ashley, Anne; Blackwell, Barbara A.; Greenhalgh, Roy; Miller, J. David; Neish, Gordon A.

CORPORATE SOURCE: Ruakura Agric. Res. Cent., Minist. Agric. Fish., Hamilton, N. Z.

SOURCE: Journal of Agricultural and Food Chemistry (1987), 35(6), 884-9  
CODEN: JAFCAU; ISSN: 0021-8561

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The trichothecene fraction produced by a liq. culture of *F. crookwellense* DAOM 193611 was sepd. by open-column liq. chromatog. on silica gel and by HPLC on a cyano bonded-phase column. The major trichothecene produced was

4,15-diacetoxynivalenol. Other secondary metabolites formed in appreciable amts. were the 7- and 8-hydroxy derivs. of isotrichodermin. Several unknown compds. were isolated and characterized by their mass spectra and <sup>1</sup>H and <sup>13</sup>C NMR spectra. Among these compds. were 7,8-dihydroxyisotrichodermin, 8-ketoisotrichodermin, and 4,15-diacetoxynivalenol.

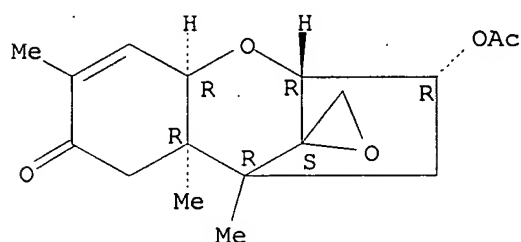
IT 109802-15-5

RL: BIOL (Biological study)  
(from *Fusarium crookwellense*)

RN 109802-15-5 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-, (3.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



*Considered  
11/14/03 msc*

=&gt; d que

L48	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	NIVALENOL/CN
L49	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	4-ACETYLNIVALENOL/CN
L50	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	"3,4-DIACETYLNIVALENOL"/CN
L51	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	"4,15-DIACETYLNIVALENOL"/CN
L53	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	"4,7,15-TRIACETYLNIVALENOL"/CN
L58	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	14287-83-3
L59	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	DEOXYNIVALENOL/CN
L60	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	3-ACETYLDEOXYNIVALENOL/CN
L61	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	15-ACETYLDEOXYNIVALENOL/CN
L62	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	"3,15-DIACETYLDEOXYNIVALENOL"/CN
L63	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	"3,7,15-TRIACETYLDEOXYNIVALENOL"/CN
L64	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	HT-2/CN
L65	2	SEA FILE=REGISTRY ABB=ON	PLU=ON	T-2/CN
L66	14	SEA FILE=REGISTRY ABB=ON	PLU=ON	L48 OR L49 OR L50 OR L51 OR L53 OR L58 OR (L59 OR L60 OR L61 OR L62 OR L63 OR L64 OR L65)
L67	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	TRICHOTHECENE/CN
L68	57	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L66 AND L67
L70	10	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L68 AND (ANTIBOD? OR IMMUNO? OR HAPTEN? OR ANTIGEN OR HYBRIDOMA OR KEYHOLE OR KLH OR BOVINE SERUM OR BSA OR OVALBUMIN OR OVA OR HORSERADISH OR HRP OR THYROGLOBULIN)

=&gt; d 170 ibib abs hitind 1-10

L70 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:810466 HCAPLUS

DOCUMENT NUMBER: 136:32933

TITLE: Improvement of megakaryocytic progenitor culture for toxicological investigations

AUTHOR(S): Froquet, R.; Sibiril, Y.; Parent-Massin, D.

CORPORATE SOURCE: Laboratoire de Microbiologie et Securite Alimentaire, Technopole Brest-Iroise, ISAMOR, Ecole Superieure de Microbiologie et Securite Alimentaire de Brest, Plouzane, 29280, Fr.

SOURCE: Toxicology in Vitro (2001), 15(6), 691-699

CODEN: TIVIEQ; ISSN: 0887-2333

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The aim of this work was to obtain an in vitro test for the evaluation of xenobiotic toxicity on the proliferation and on the differentiation of megakaryocyte progenitors. The rapid rate of blood cell renewal makes the hematopoietic system a susceptible target for xenobiotic toxicity. Hematotoxic mols. can affect one or more hematopoietic lineages leading to blood disorders. Megakaryocytopoiesis in vitro models applied to toxicol. investigations needs to be accurate, precise, reproducible, sensitive and specific. Human hematopoietic progenitors from umbilical cord blood were seeded in a collagen medium. Three solvents have been selected (ethanol, methanol, acetone), and one (DMSO) has been eliminated due to its cytotoxicity at tested concns. Cryopreservation did not affect the sensitivity of CFU-MK to xenobiotics. An overnight incubation of cell



suspensions as cell suspension enrichment before plating gave better cloning efficiency than CD34+ cells neg. selection. Comparison between different parameters allowed us to propose a protocol suitable for an in vitro megakaryocytopoiesis model in toxicol. investigations. The effects of three toxins were studied on CFU-MK development in order to verify the efficiency of this clonogenic assays for toxicity testing. The CFU-MK culture conditions defined revealed their usefulness for investigating drug cytotoxicity towards megakaryocytic progenitors and disturbance of their proliferation.

CC 4-1 (Toxicology)

IT CD34 (antigen)

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(cells contg.; xenobiotic hematotoxicity in relation to improvement of megakaryocytic progenitor culture for toxicol. investigations)

IT 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 67-64-1, Acetone, biological studies 67-68-5, DMSO, biological studies 303-47-9, Ochratoxin A 21259-20-1, T-2 Toxin 51481-10-8, Deoxynivalenol 51724-48-2, Trichothecene

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(xenobiotic hematotoxicity in relation to improvement of megakaryocytic progenitor culture for toxicol. investigations)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L70 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:695794 HCAPLUS

DOCUMENT NUMBER: 136:19172

TITLE: The state-of-the-art in the analysis of type-A and -B trichothecene mycotoxins in cereals

AUTHOR(S): Krska, R.; Baumgartner, S.; Josephs, R.

CORPORATE SOURCE: Center for Analytical Chemistry, Institute for Agrobiotechnology (IFA-Tulln), Tulln, 3430, Austria  
SOURCE: Fresenius' Journal of Analytical Chemistry (2001), 371(3), 285-299

CODEN: FJACES; ISSN: 0937-0633

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB The aim of this review is to describe the state-of-the-art in the anal. of A- and B-trichothecene mycotoxins in cereals and to support knowledge and experience exchange between labs. in the field of Fusarium mycotoxin anal. Current screening tests and quant. methods for the most prevalent type-A and -B trichothecenes, HT-2, and T-2-toxin, and deoxynivalenol (DON) are reviewed. This includes the extn. and clean-up procedures and chromatog. methods (TLC, HPLC, GC) applied and the immunochem. methods, esp. ELISA (ELISA), employed for the detn. of these mycotoxins. Results from recent intercomparison studies of the detn. of DON are also discussed. Experience gained during these intercomparisons clearly shows the need for further improvement in the detn. of trichothecenes, to obtain more accurate and comparable results. This also indicates there is a strong need for the development of further certified ref. materials (CRM) which would enable comparison of measurement results between different European labs. for several A- and B-trichothecenes. For both A- and B-trichothecenes there is still a lack of simple and reliable screening methods enabling the rapid detection of these mycotoxins at low cost.

CC 17-0 (Food and Feed Chemistry)

IT Cereal (grain)

Chromatography  
Extraction  
Food analysis  
Food contamination

**Immunoassay**

Standard substances, analytical

(state-of-the-art in anal. of type-A and -B trichothecene mycotoxins in cereals)

IT 21259-20-1, T-2-Toxin **51481-10-8**, Deoxynivalenol

**51724-48-2**, Trichothecene

RL: ANT (Analyte); POL (Pollutant); ANST (Analytical study); OCCU

(Occurrence)

(state-of-the-art in anal. of type-A and -B trichothecene mycotoxins in cereals)

REFERENCE COUNT: 124 THERE ARE 124 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L70 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:430829 HCAPLUS

DOCUMENT NUMBER: 135:72628

TITLE: Effects of tebuconazole on morphology, structure, cell  
wall components and trichothecene production of  
*Fusarium culmorum* in vitro

AUTHOR(S): Kang, Zhensheng; Huang, Lili; Krieg, Ulrich;  
Mauler-Machnik, Astrid; Buchenauer, Heinrich

CORPORATE SOURCE: Institute of Phytomedicine (360), University of  
Hohenheim, Stuttgart, D-70593, Germany

SOURCE: Pest Management Science (2001), 57(6), 491-500  
CODEN: PMSCF; ISSN: 1526-498X

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of tebuconazole, a systemic fungicide, on the morphol.,  
structure, cell wall components and toxin prodn. of *Fusarium culmorum* were  
investigated in vitro. Treatment was by application of four filter paper  
strips (0.75 cm .times. 5.0 cm) soaked in 20 .mu.g/ml-1 fungicide placed  
around a point inoculum in Petri dishes. Mycelial growth was strongly  
inhibited by fungicide treatment. Scanning electron microscopic  
observations showed that the fungicide caused irregular swelling and  
excessive branching of hyphae. The morphol. changes induced by the  
fungicide at the ultrastructural level included considerable thickening of  
the hyphal cell walls, excessive septation, the formation of the  
incomplete septa, extensive vacuolization, accumulation of lipid bodies  
and progressing necrosis or degeneration of the hyphal cytoplasm.  
Non-membrane inclusion bodies were often detected in the hyphal cytoplasm.  
Furthermore, the formation of new hyphae (daughter hyphae) inside  
collapsed hyphal cells was common following treatment. The daughter  
hyphae also displayed severe alterations such as irregular thickening of  
the cell walls and necrosis of the cytoplasm. Using cytochem. techniques,  
the labeling densities of chitin and .beta.-1,3-glucan in the cell walls  
of the fungicide-treated hyphae were more pronounced than in those of the  
control hyphae. Moreover, immunogold labeling with antiserum  
against deoxynivalenol (DON) revealed that *Fusarium* toxin DON was  
localized in the cell walls, cytoplasm, mitochondria and vacuoles of the  
hyphae from the control and the fungicide treatment, but the labeling d.  
in the fungicide-treated hyphae decreased dramatically compared with the

control hyphae, indicating that tebuconazole reduced Fusarium toxin prodn. of the fungus.

CC 5-2 (Agrochemical Bioregulators)

Section cross-reference(s): 10

IT 51481-10-8, Deoxynivalenol

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(effects of tebuconazole on morphol., structure, cell wall components and trichothecene prodn. of Fusarium culmorum in vitro)

IT 51724-48-2, Trichothecene

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(effects of tebuconazole on morphol., structure, cell wall components and trichothecene prodn. of Fusarium culmorum in vitro)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L70 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:185909 HCAPLUS

DOCUMENT NUMBER: 134:221453

TITLE: Monoclonal antibodies specific for trichothecene mycotoxin and their use in detecting toxin pollution in products and environment

INVENTOR(S): Kohno, Hiroaki; Hashimoto, Yuriko; Yoshizawa, Takumi

PATENT ASSIGNEE(S): Kyowa Medex Co., Ltd., Japan

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

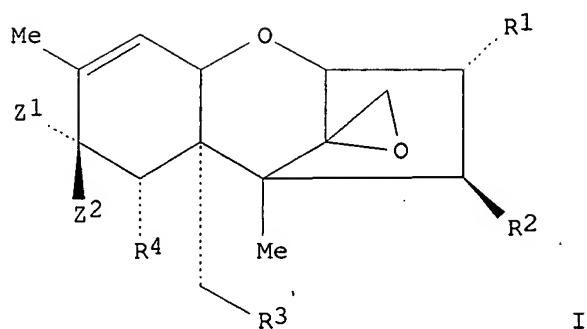
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001018196	A1	20010315	WO 2000-JP6100	20000907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1215282	A1	20020619	EP 2000-957006	20000907
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRIORITY APPLN. INFO.:			JP 1999-253443	A 19990907
			JP 1999-310185	A 19991029
			WO 2000-JP6100	W 20000907

OTHER SOURCE(S): MARPAT 134:221453

GI



- AB Monoclonal **antibodies** having high affinity for trichothecene mycotoxins, DON (deoxynivalenol), NIV(nivalenol) and T-2 toxin are created and trichothecene mycotoxins are embracively quantitated by using the **antibodies**. Mycotoxin I (R1-R4 = acyloxy, H, OH; Z1 = Me2CHCH2COO and Z2 = H or Z1 and Z2 are replaced by :O; at least one of R1-R4 is OH) was used as **antigen** to create monoclonal **antibodies**. The resulting monoclonal **antibodies** can specifically recognize mycotoxin II (I; R1, R3, R4 = OH, R2=CH3COO, Z1 + Z2 = :O), mycotoxin III (I; R1, R3, R4 = OH, acyloxy; R2b = H, OH, acyloxy; at least one of R1, R3 and R4 is acyloxy when R2 = H, OH; Z1 + Z2 = :O), and mycotoxin IV (I; R1-R3 = OH, acyloxy; R4 = H; Z1 = Me2CHCH2COO, Z2 = H and at least one of R1-R3 is acyloxy). These monoclonal **antibodies** showed higher affinity and specificity for DON, NIV and T-2 than the ones used before. This invention also provide the method for sampling and detecting mycotoxin producing fungi from product and environment.
- IC ICM C12N015-02  
ICS C12P021-08; C12N015-12; G01N033-53; G01N033-577
- CC 15-3 (Immunochemistry)  
Section cross-reference(s): 6
- ST monoclonal **antibodies** trichothecene mycotoxin  
**immunoassay**; Fusarium mycotoxin DON deoxynivalenol NIV nivalenol  
T2 toxin
- IT Environmental pollution  
(by mycotoxin; monoclonal **antibodies** specific for  
trichothecene mycotoxin and their use in detecting toxin pollution in  
products and environment)
- IT **Hybridoma**  
(cloned, FERM BP-6835, 6836, 6837, to produce **antibodies**;  
monoclonal **antibodies** specific for trichothecene mycotoxin  
and their use in detecting toxin pollution in products and environment)
- IT Mycotoxins  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical  
study); BIOL (Biological study)  
(monoclonal **antibodies** specific for trichothecene mycotoxin  
and their use in detecting toxin pollution in products and environment)
- IT **Antibodies**  
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
(Biological study); USES (Uses)  
(monoclonal, for mycotoxin; monoclonal **antibodies** specific  
for trichothecene mycotoxin and their use in detecting toxin pollution  
in products and environment)
- IT Fusarium chlamydosporum  
Fusarium culmorum

Fusarium graminearum  
 (mycotoxin from; monoclonal **antibodies** specific for  
 trichothecene mycotoxin and their use in detecting toxin pollution in  
 products and environment)

IT Immobilization, biochemical  
 (of mycotoxin in reagent kit; monoclonal **antibodies** specific  
 for trichothecene mycotoxin and their use in detecting toxin pollution  
 in products and environment)

IT Esterification  
 (to convert mycotoxin to the form detectable; monoclonal  
**antibodies** specific for trichothecene mycotoxin and their use  
 in detecting toxin pollution in products and environment)

IT Immunoassay  
 (to detect mycotoxin, using monoclonal **antibodies**; monoclonal  
**antibodies** specific for trichothecene mycotoxin and their use  
 in detecting toxin pollution in products and environment)

IT Solvents  
 (water miscible, to isolate mycotoxin; monoclonal **antibodies**  
 specific for trichothecene mycotoxin and their use in detecting toxin  
 pollution in products and environment)

IT 21259-20-1, T-2 Toxin 23282-20-4, Nivalenol 51724-48-2  
 , Trichothecene  
 RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical  
 study); BIOL (Biological study)  
 (monoclonal **antibodies** specific for trichothecene mycotoxin  
 and their use in detecting toxin pollution in products and environment)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L70 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:601331 HCAPLUS

DOCUMENT NUMBER: 131:307808

TITLE: In vitro exposure of human lymphocytes to  
 trichothecenes: individual variation in sensitivity  
 and effects of combined exposure on lymphocyte  
 function

AUTHOR(S): Thuvander, A.; Wikman, C.; Gadhasson, I.

CORPORATE SOURCE: Division of Toxicology, National Food Administration,  
 Uppsala, 751 26, Swed.

SOURCE: Food and Chemical Toxicology (1999), 37(6), 639-648

CODEN: FCTOD7; ISSN: 0278-6915

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The trichothecenes are mycotoxins produced by fungi of the genus Fusarium,  
 which are commonly present in foods and feed of cereal origin. Owing to  
 the lack of sufficient toxicol. data for most of the trichothecenes, in  
 vitro studies may contribute to risk assessments of these toxins. In the  
 present report, human lymphocyte cultures were used to study the  
 individual variation in sensitivity among humans and the effects on in  
 vitro Ig prodn. Furthermore, proliferative responses of cells  
 exposed to combinations of two of the toxins were studied. Four toxins,  
 T-2 toxin, diacetoxyscirpenol (DAS), nivalenol (NIV) and deoxynivalenol  
 (DON) were included in the study. All four of the tested trichothecenes  
 effectively inhibited mitogen-induced lymphocyte proliferation. There  
 were no statistically significant differences in sensitivity to the toxins  
 between lymphocytes from female and male blood donors. The individual

variation in sensitivity, evaluated as the range of IC50 values, was rather limited (within a factor of 3 to 4). Ig prodn. by pokeweed-stimulated human lymphocytes was also effectively inhibited with IC50 values similar to the IC50 values in the proliferation tests for DON and NIV. However, IC50 values for Ig synthesis in cultures exposed to T2 were approx. two to three times higher than the corresponding IC50 values found in the proliferation tests. At low levels of exposure, elevated Ig prodn. was obsd. in lymphocyte cultures from four out of the five blood donors tested. This effect was most pronounced on IgA synthesis. Combinations of NIV with T2, DAS or DON resulted in additive toxicity in the lymphocyte proliferation test, while combinations of DON with T2 or DAS resulted in an inhibition that was slightly lower than what could have been expected from the inhibition produced by the individual toxins. In conclusion, the tested trichothecenes inhibited both proliferation and Ig prodn. in human lymphocytes in a dose-dependent manner with limited variation in sensitivity between individuals. Enhanced Ig prodn. was obsd. in cell cultures exposed to the lower doses of the toxins. Combined exposure to two of the toxins resulted mainly in additive or antagonistic effects, although synergistic effects cannot be excluded and should be further investigated. These findings indicate that the total intake of type A and B trichothecenes should be taken into account in risk assessments.

CC 4-5 (Toxicology)

IT Immunoglobulins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(human lymphocytes response to trichothecene mycotoxins)

IT 2270-40-8 21259-20-1, T-2 Toxin 23282-20-4, Nivalenol  
51481-10-8, Deoxynivalenol

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(human lymphocytes response to trichothecene mycotoxins)

IT 51724-48-2, Trichothec-9-ene

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(mycotoxins; human lymphocytes response to trichothecene mycotoxins)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L70 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:543764 HCAPLUS

DOCUMENT NUMBER: 129:244276

TITLE: Performance of modern sample preparation techniques in  
the analysis of Fusarium mycotoxins in cereals

AUTHOR(S): Krska, Rudolf

CORPORATE SOURCE: Center for Analytical Chemistry, Institute for  
Agrobiotechnology (IFA-Tulln), Tulln, A-3430, Austria  
JOURNAL: Journal of Chromatography, A (1998), 815(1), 49-57

SOURCE: CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The efficiency of modern sample prepn. techniques are discussed and compared to well-established techniques with respect to the detn. of zearalenone in corn and B-trichothecenes in wheat in the .mu.g/kg range. This includes the use of immuno-affinity columns and of multifunctional Mycosep columns as well as the employment of supercrit. fluid extn. for the trace anal. of these major Fusarium mycotoxins. In

addn., the performance of new anal. methods was investigated in an interlab. comparison study. From both the validation data and from the results of the intercomparison study, the suitability and competitiveness of the methods described could be clearly demonstrated.

CC 17-1 (Food and Feed Chemistry)

IT Chromatography

(immunoaffinity; sample prepn. techniques in anal. of Fusarium mycotoxins in cereals)

IT 51724-48-2, Trichothec-9-ene

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(mycotoxins; sample prepn. techniques in anal. of Fusarium mycotoxins in cereals)

IT 17924-92-4, Zearalenone 23255-69-8, Fusarenone X

23282-20-4, Nivalenol 50722-38-8, 3-Acetyldeoxynivalenol

51481-10-8, Deoxynivalenol 88337-96-6,

15-Acetyldeoxynivalenol

RL: ANT (Analyte); ANST (Analytical study)

(sample prepn. techniques in anal. of Fusarium mycotoxins in cereals)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L70 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:43218 HCAPLUS

DOCUMENT NUMBER: 128:127237

TITLE: Fumonisin as a possible contributory risk factor for primary liver cancer: a 3-year study of corn harvested in Haimen, China, by HPLC and ELISA

AUTHOR(S): Ueno, Y.; Iijima, K.; Wangi, S.-D.; Sugiura, Y.; Sekijima, M.; Tanaka, T.; Chen, C.; Yu, S.-Z.

CORPORATE SOURCE: Department of Toxicology and Microbial Chemistry, University of Tokyo, Tokyo, 162, Japan

SOURCE: Food and Chemical Toxicology (1997), 35(12), 1143-1150  
CODEN: FCTOD7; ISSN: 0278-6915

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Employing HPLC fluorometry, gas-liq. chromatog. (GLC) and a novel ELISA based on a monoclonal **antibody**, 40 corn samples, each collected in 1993 from agricultural stocks for human consumption in Haimen (Jiangsu County) and Penlai (Shandong Province), high- and low-risk areas for primary liver cancer (PLC) in China, resp., were analyzed for fumonisins (FBs), aflatoxins (AFs) and trichothecenes. Levels and pos. rates of FBs and deoxynivalenol (DON) were significantly higher in Haimen than in Penlai. ELISA of the 40 corn samples harvested in the two areas in 1994 revealed that FB contamination levels and rates in these areas were comparable to those obsd. in 1993 in Haimen. ELISA anal. of 1993 and 1994 products revealed a wide occurrence of AFB1 but the pos. rates as well as levels were not significantly different between these areas. ELISA of the same sample no. of corn harvested in 1995 revealed that FB contamination in Haimen was significantly higher than in Penlai. These 3-yearly surveys of corn samples (240 in total) demonstrated that corn harvested in Haimen was highly contaminated with FBs and that the contamination level; as well as pos. rate in 1993 and 1995, were 10-50-fold higher than those in Penlai, suggesting FBs as a risk factor for promotion of PLC in endemic areas, along with the trichothecene DON. Co-contamination with AFs, potent hepatocarcinogens, was assumed to play an important role in the initiation of hepatocarcinogenesis.

CC 17-5 (Food and Feed Chemistry)  
IT **Immunoassay**  
(enzyme-linked **immunosorbent** assay; fumonisins as possible contributory risk factor for primary liver cancer-3-yr study of corn harvested in Haimen, China, by HPLC and ELISA)  
IT 1162-65-8, Aflatoxin B1 **23282-20-4**, Nivalenol **51481-10-8**, Deoxynivalenol **51724-48-2D**, Trichothecene, derivs.  
116355-83-0, Fumonisin B1 116355-84-1, Fumonisin B2 136379-59-4, Fumonisin B3  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(fumonisins as possible contributory risk factor for primary liver cancer-3-yr study of corn harvested in Haimen, China, by HPLC and ELISA)  
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
  
L70 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1996:278673 HCAPLUS  
DOCUMENT NUMBER: 124:341283  
TITLE: Natural occurrence of Fusarium mycotoxins in field samples from the 1992 Wisconsin corn crop  
AUTHOR(S): Park, Joung J.; Smalley, Eugene B.; Chu, Fun S.  
CORPORATE SOURCE: Food Research Institute, Univ. Wisconsin-Madison, Madison, WI, 53706, USA  
SOURCE: Applied and Environmental Microbiology (1996), 62(5), 1642-1648  
CODEN: AEMIDF; ISSN: 0099-2240  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Anal. of 98 moldy corn samples collected in Wisconsin between Nov. 1992 and Jan. 1993 for Fusarium toxins by various **immunochem.** assays revealed overall av. mycotoxin concns. of 305.6, 237.7, and 904.3 ng/g for type A trichothecenes (TCTCs), deoxynivalenol (DON)-related type B TCTCs (total DON), and zearalenone (ZE), resp. A small portion (5.1%) of the samples was found to be contaminated with high levels (>1 .mu.g/g) of type A TCTCs and total DON during the whole survey. Over 40% of the samples had 100 to 1,000 ng of total DON per g, while 17% of the samples had the same levels of type A TCTCs. The anal. data were consistent with those from mycol. exams. for the samples in which various toxic Fusarium spp., including F. sporotrichioides, F. poae, and F. graminearum, were found. The samples received in Nov. 1992 had relatively low concns. of toxin; the av. levels of type A TCTCs and total DON were 9.9 and 79 ng/g, resp. The toxin concns. became progressively higher in the samples received in Dec. The av. levels for the type A TCTCs and total DON increased to 920 and 335 ng/g, resp. However, the levels of ZE were higher in the samples collected earlier. The av. levels for samples collected in Nov. and late Dec. were 1195 and 242 ng/g, resp. Anal. of selected samples by high-performance liq. chromatog. monitoring with an ELISA revealed that T-2 toxin, HT-2 toxin, diacetoxyscirpenol, neosolaniol, and T-2 tetraol (T-2-4ol) were common in these samples. Statistical anal. revealed a weak correlation between the levels of total type A TCTCs and total DON in the samples (r = 0.18, P = 0.09), but a strong correlation between the levels of ZE and total type B TCTCs (r = 0.75, P<0.0001) was found. The mycotoxin levels of total type A TCTCs, total DON-related type B TCTCs, and ZE in the cobs (5.2, 3.9, and 21 .mu.g/g, resp.) were considerably



higher than those in the kernels (1.0 and 0.5 .mu.g/g, resp.). The type A toxin levels increased from a range of 14 to 35 ng/g to a range of 110 to 538 ng/g after the moldy corn samples were held at 5.degree.C for 8 days in the lab.

CC 17-5 (Food and Feed Chemistry)

IT 2270-40-8 17924-92-4, Zearalenone 21259-20-1, T-2 Toxin 26934-87-2,  
HT-2 toxin 34114-99-3, T-2 Tetraol 36519-25-2, Neosolaniol  
51481-10-8, Deoxynivalenol 51724-48-2D, Trichothecene,  
derivs.

RL: BSU (Biological study, unclassified); POL (Pollutant); BIOL  
(Biological study); OCCU (Occurrence)

(natural occurrence of Fusarium mycotoxins in field samples from 1992  
Wisconsin corn crop)

L70 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:73245 HCAPLUS

DOCUMENT NUMBER: 118:73245

TITLE: Trichothecenes as antitumor substances: inhibition of  
growth of human lymphocytes, lymphoma and leukemia  
cells

AUTHOR(S): Mekhancha-Dahel, C.; Lafarge-Frayssinet, C.; Venuat,  
A. M.; Rosenfeld, C.; Frayssinet, C.

CORPORATE SOURCE: Lab. Pathol. Cell., IRSC, Villejuif, F-94801, Fr.

SOURCE: Journal of Cellular Pharmacology (1992), 2(6), 343-50  
CODEN: JOCPEK; ISSN: 0939-1096

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Trichothecenes are a family of natural cytotoxic compds.; one of them, DAS has been proposed as an antitumor agent. The use of these mols. is crit. due to their toxicity and **immunosuppressive** properties. The authors studied the cytotoxic properties for human peripheral blood lymphocytes, human lymphomas or leukemias of four compds.: T-2 toxin, DAS, trichodermin, DON, offering a large range of toxicity (LD50 ranging from 4 to 500 mg/kg in mouse). The eventual chemotherapeutic utilization of these products may be evaluated either by the ratio of toxicity for neoplastic cells vs. toxicity for non malignant cells, or vs. LD50 in vivo. Tumorigenic B cells are the most sensitive. Pre-B null cells are either insensitive to toxic effects of the drugs or stimulated at low doses of T-2 toxin. T cells gave variable responses, some of them being sensitive, the others not, a third class of T cells displayed an important growth enhancement for low doses of T-2 toxin. Among the toxins, T-2 and DAS were the most potent in abs. value but have the disadvantage of stimulation at low doses and toxicity. DON shows a very restricted activity with unfavorable tumor cell/non malignant cell ratio. Trichodermin appears to be the most interesting mol. with low toxicity and lack of stimulation at low doses.

CC 1-6 (Pharmacology)

IT 2270-40-8, DAS 4682-50-2, Trichodermin 21259-20-1, T-2 Toxin

51481-10-8 51724-48-2D, Trichothecene, analogs

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

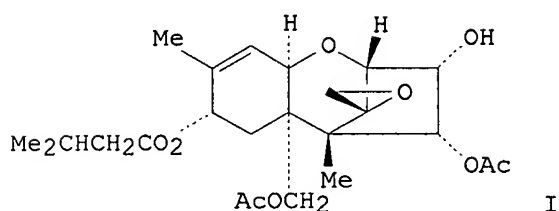
(antitumor activity of, in human lymphocyte and lymphoma and leukemia)

L70 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1985:482734 HCAPLUS

DOCUMENT NUMBER: 103:82734

TITLE: Toxicological properties of T-2 toxin and related trichothecenes  
 AUTHOR(S): Ueno, Y.; Muto, A.; Kobayashi, J.  
 CORPORATE SOURCE: Fac. Pharm. Sci., Tokyo Univ. Sci., Tokyo, 162, Japan  
 SOURCE: Archives Belges de Medecine Sociale, Hygiene, Medecine du Travail et Medecine Legale (1984), Suppl. (Proc.-World Congr. "New Compd. Biol. Chem. Warf.: Toxicol. Eval., 1st, 1984), 160-72  
 CODEN: ABMHAM; ISSN: 0003-9578  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 GI



AB A discussion on the toxicol. features of trichothecene mycotoxins, including T2 toxin (I) [21259-20-1], the prevention of the trichothecene exposure, and treatment or prophylaxis of the trichothecene toxicosis. Pharmacol., systemic, and **immunosuppressive** effects of the trichothecenes are presented.

CC 4-0 (Toxicology)

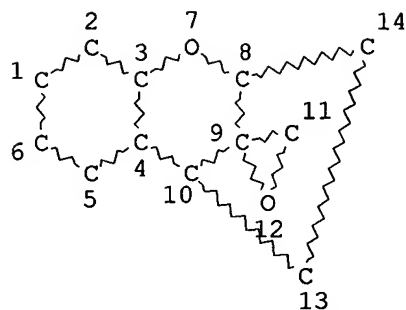
IT 2270-40-8 2290-11-1 3148-09-2 4643-58-7 14729-29-4 21259-20-1  
 21259-20-1D, metabolites 21284-11-7 **23255-69-8**  
**23282-20-4 51481-10-8** 53126-63-9 53126-64-0  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (toxicity of)

IT **51724-48-2D**, derivs.  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (toxicity of, prevention of or treatment for)

=&gt; d que

L1

STR



*Considered.*  
11/14/03  
MGC

## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

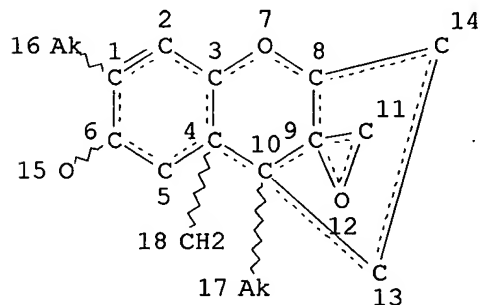
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NUMBER OF NODES IS 14

## STEREO ATTRIBUTES: NONE

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L3 STR



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CONNECT IS E1 RC AT 17

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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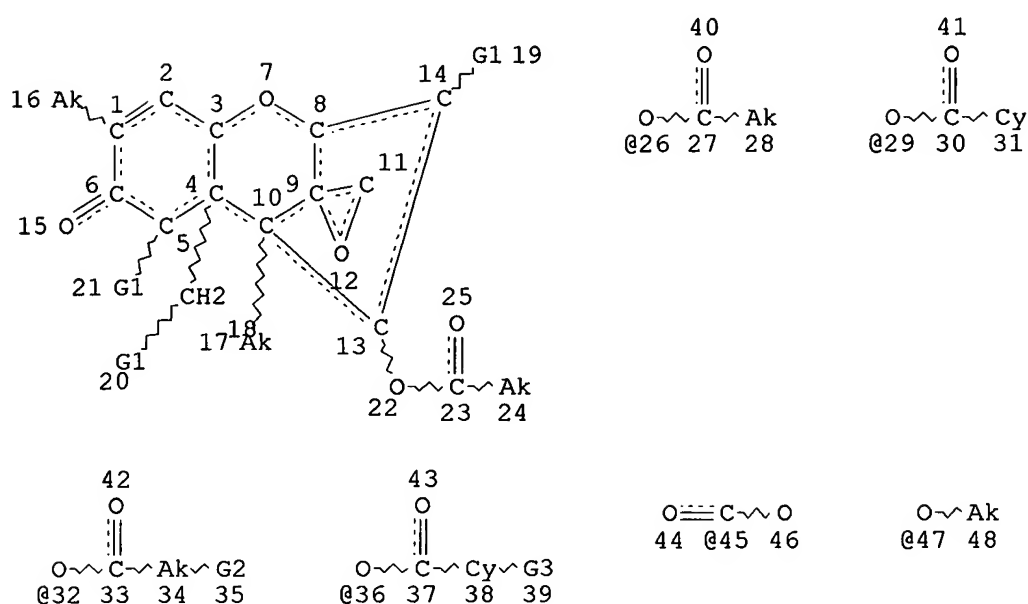
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NUMBER OF NODES IS 18

## STEREO ATTRIBUTES: NONE

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L5 STR



Page 1-A

@49

Page 1-B

VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 16

CONNECT IS E1 RC AT 17

CONNECT IS E1 RC AT 24

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

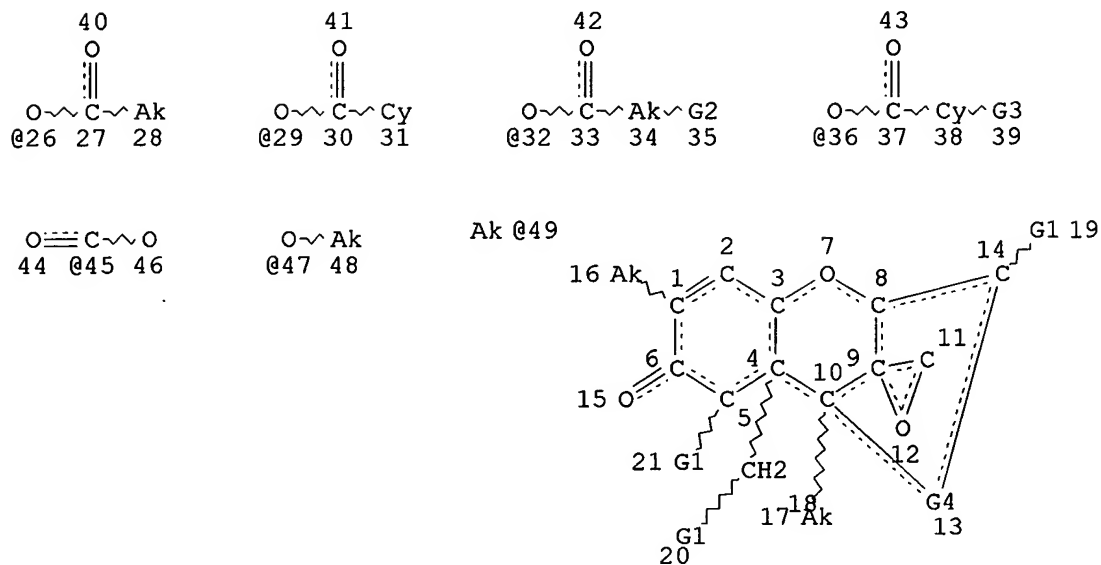
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 49

STEREO ATTRIBUTES: NONE

L6 8 SEA FILE=REGISTRY SUB=L4 SSS FUL L5

L7 STR



CH~G1  
@50 51

VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G4=CH2/50

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 16

CONNECT IS E1 RC AT 17

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

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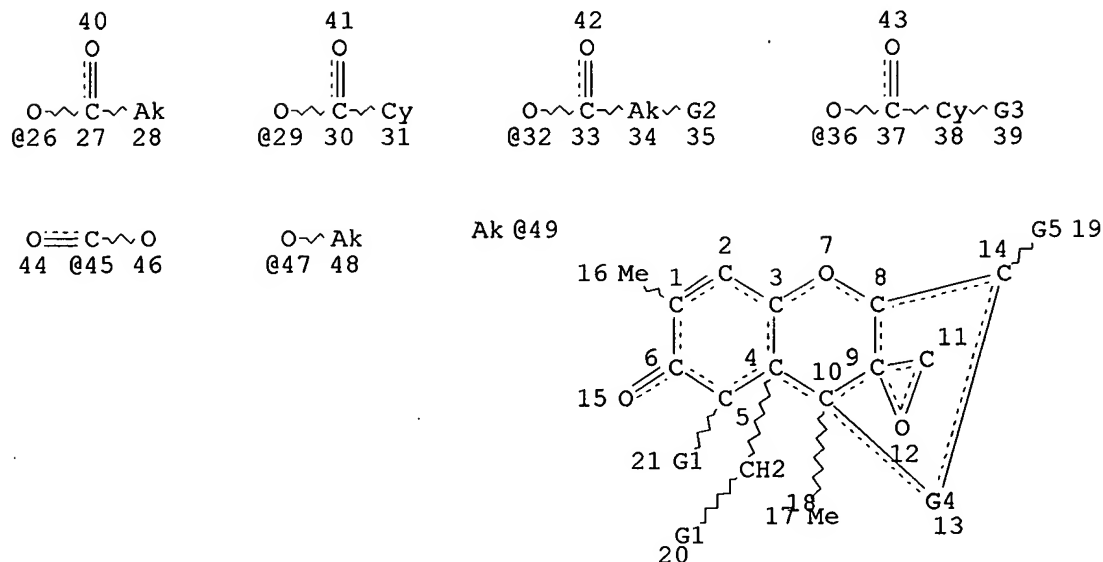
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L8 50 SEA FILE=REGISTRY SUB=L4 SSS FUL L7

L11 STR



$\text{CH} \sim \text{OH}$   
 @50 51

VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G4=CH2/50

VAR G5=26/29/32/36

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

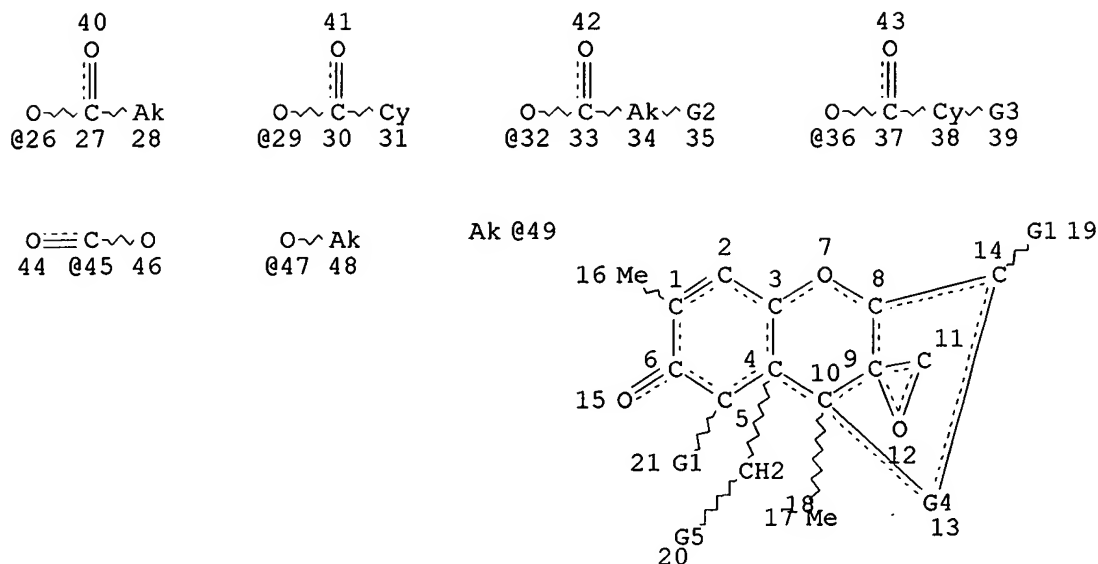
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L12 19 SEA FILE=REGISTRY SUB=L8 SSS FUL@L11

L13 STR



$\text{CH} \sim \text{OH}$   
 @50 51

VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G4=CH2/50

VAR G5=26/29/32/36

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

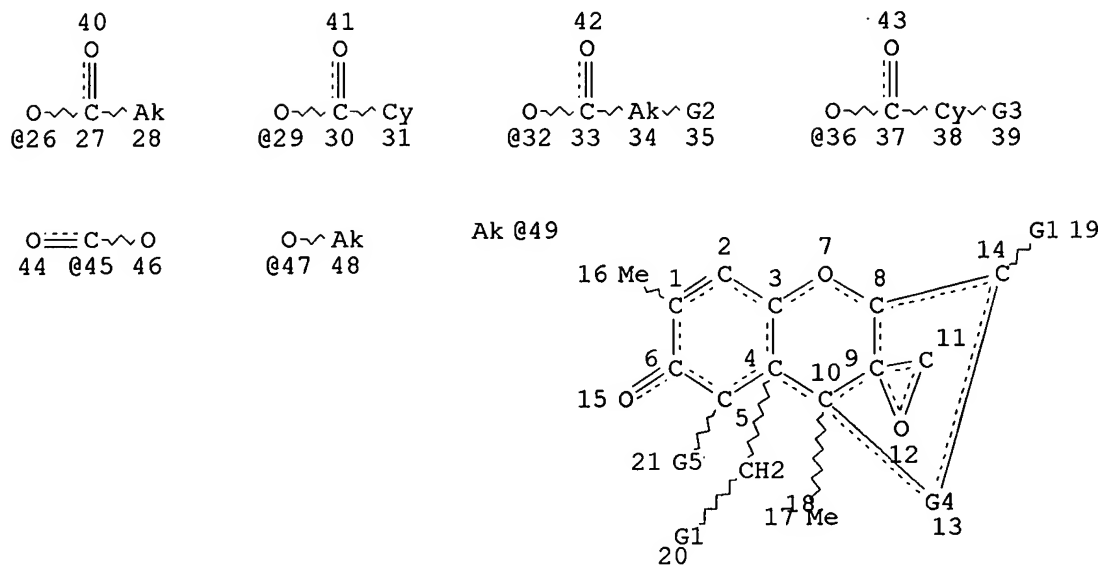
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

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L15 STR



CH~OH  
@50 51

VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G4=CH2/50

VAR G5=26/29/32/36

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

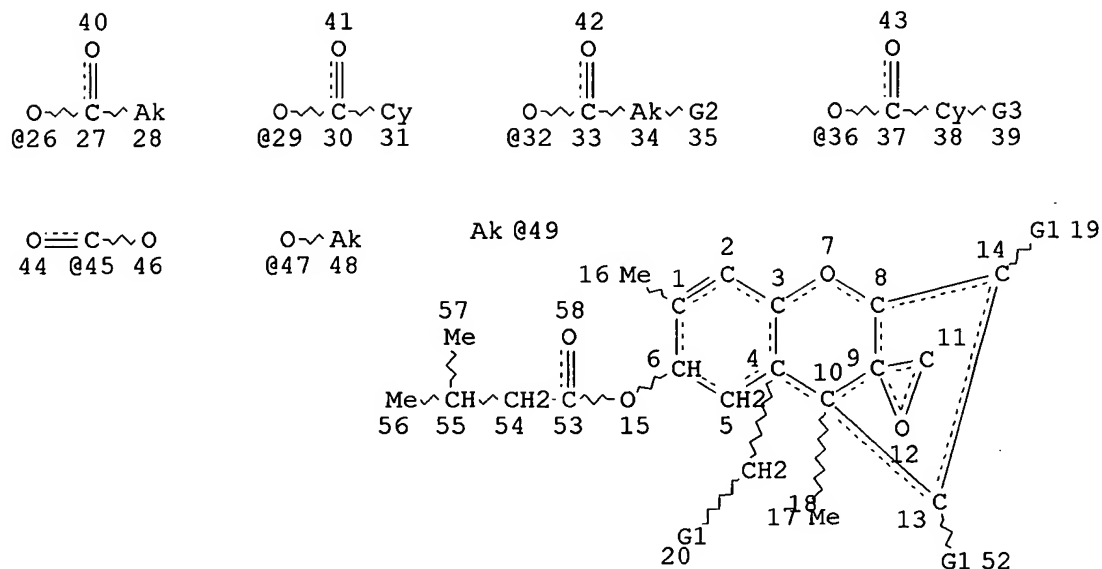
L1@ 4 SEA FILE=REGISTRY SUB=L8 SSS FUL L15

L17 29 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR L14 OR L16

L18 394 SEA FILE=HCAPLUS ABB=ON PLU=ON L17

L19 STR





VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

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GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

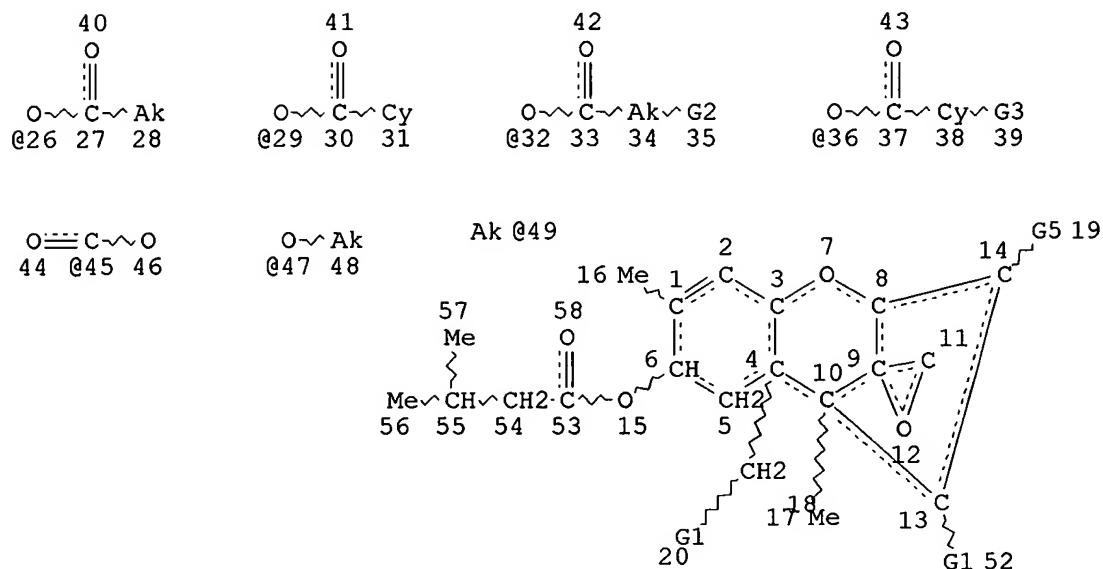
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 51

STEREO ATTRIBUTES: NONE

L20 39 SEA FILE=REGISTRY SUB=L4 SSS FUL L19

L21 STR



VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G5=26/29/32/36

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

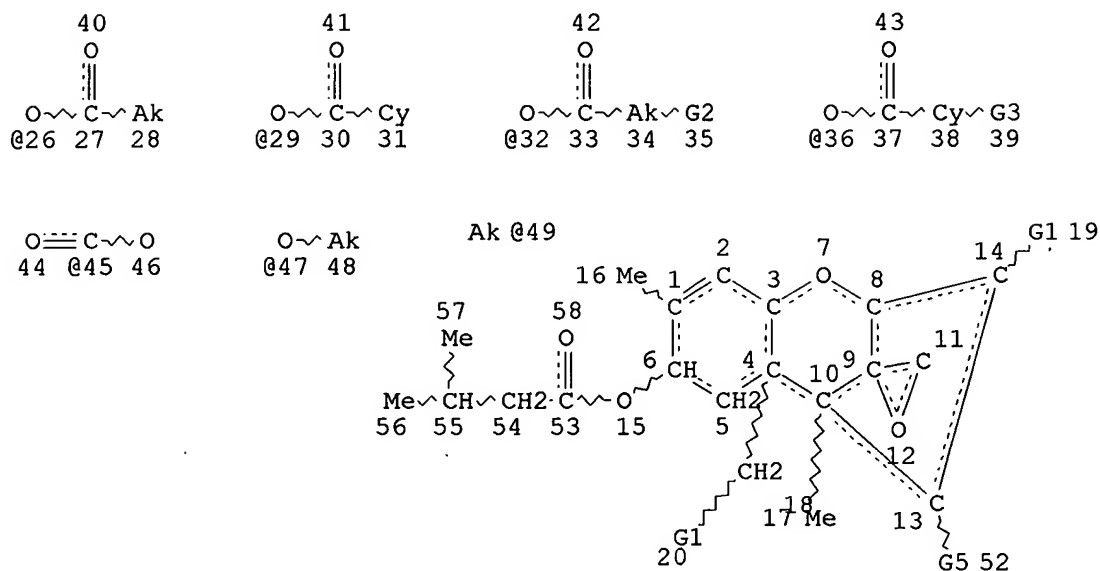
NUMBER OF NODES IS 51

STEREO ATTRIBUTES: NONE

L22 19 SEA FILE=REGISTRY SUB=L20 SSS FUL L21

L23 STR

4



VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G5=26/29/32/36

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

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GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

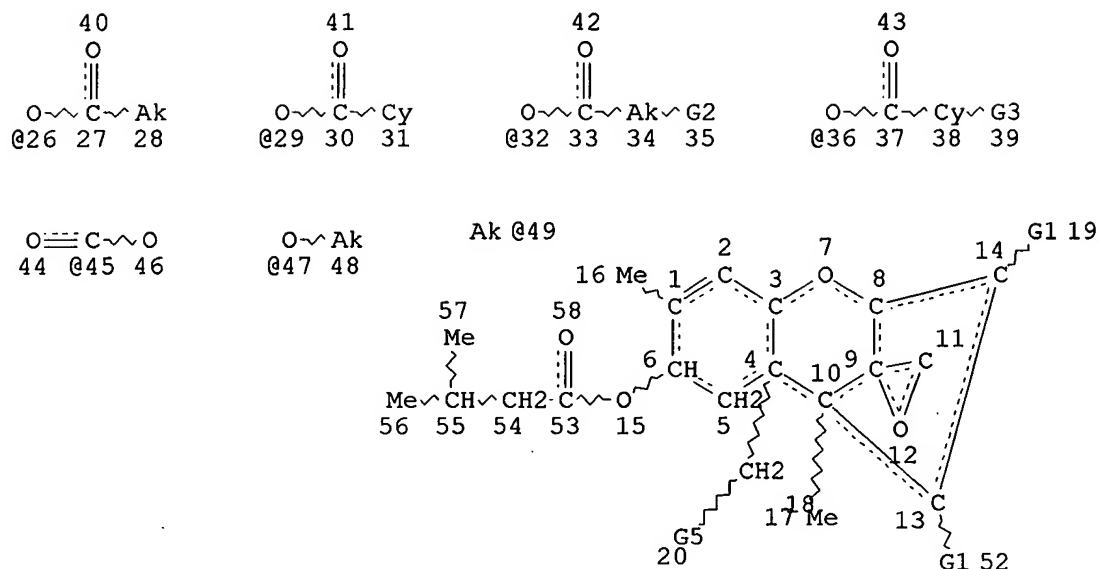
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NUMBER OF NODES IS 51

STEREO ATTRIBUTES: NONE

L24 30 SEA FILE=REGISTRY SUB=L20 SSS FUL L23

L26 STR



VAR G1=OH/26/29/32/36

VAR G2=OH/45

VAR G3=49/47/OH/X/45

VAR G5=26/29/32/36

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 28

CONNECT IS E1 RC AT 31

CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 48

CONNECT IS E1 RC AT 49

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 31

GGCAT IS UNS AT 38

GGCAT IS LOC AT 48

GGCAT IS LOC AT 49

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 51

STEREO ATTRIBUTES: NONE

L27 36 SEA FILE=REGISTRY SUB=L20 SSS FUL L26

L28 38 SEA FILE=REGISTRY ABB=ON PLU=ON L22 OR L24 OR L27

L29 1915 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 OR L18 OR L28

L30 81 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 AND L18 AND L28

L31 139 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND ANTIBOD?

L32 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND ANTIBOD?

L33 52466 SEA FILE=HCAPLUS ABB=ON PLU=ON "ANTIBODIES (L) MONOCLONAL"/CT

L34 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND L33

L35 5017 SEA FILE=HCAPLUS ABB=ON PLU=ON HYBRIDOMA/CT

L36 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND L35

L37 115 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND (IMMUNO? OR HAPTEN OR ANTIGEN OR KEYHOLE OR KLH OR BOVINE SERUM OR BSA OR OVALBUMIN

OR OVA OR HORSERADISH OR HRP OR THYROGLOBULIN)  
 L38 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND L30  
 L40 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND ANTIBOD? (2A) MONOCLON?  
 L41 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 OR L36 OR L38 OR L40

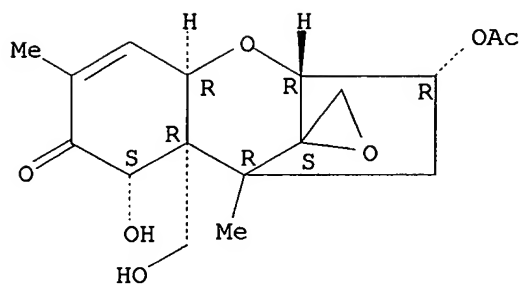
=> d 141 ibib ab hitstr 1-50

L41 ANSWER 1 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:42457 HCAPLUS  
 DOCUMENT NUMBER: 138:102294  
 TITLE: Correlation of TRI5-TRI6 intergenic region with  
 trichothecene production in Fusarium and methods for  
 determining capacity of trichothecene production  
 INVENTOR(S): Bakan, Benedicte; Brygoo, Yves  
 PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique, Fr.  
 SOURCE: PCT Int. Appl., 76 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004701	A2	20030116	WO 2002-FR2382	20020708
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2826978	A1	20030110	FR 2001-8997	20010706

PRIORITY APPLN. INFO.: FR 2001-8997 A 20010706  
 AB The invention concerns a method for detg. the capacity of Fusarium for  
 producing trichothecene toxins characterized in that it comprises a step  
 which consists in detecting the sequence of a regulatory region between  
 the TRI5 and TRI6 genes. The sequence may be detected by hybridization,  
 amplification, or sequencing.  
 IT **50722-38-8**, 3-Acetyldeoxynivalenol **88337-96-6**,  
 15-Acetyldeoxynivalenol  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (correlation of TRI5-TRI6 intergenic region with trichothecene prodn.  
 in Fusarium and methods for detg. capacity of trichothecene prodn.)  
 RN 50722-38-8 HCAPLUS  
 CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
 (3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

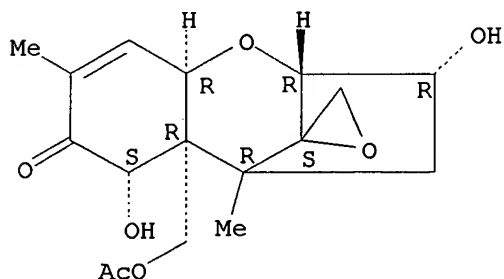
Absolute stereochemistry.



RN 88337-96-6 HCAPLUS

CN Trichothec-9-en-8-one, 15-(acetyloxy)-12,13-epoxy-3,7-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 2 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:220933 HCAPLUS

DOCUMENT NUMBER: 136:246799

TITLE: Fluorescence polarization-based homogeneous assay for  
deoxynivalenol determination in grains

INVENTOR(S): Nasir, Mohammad Sarwar; Jolley, Michael E.

PATENT ASSIGNEE(S): Diachemix Corporation, USA

SOURCE: PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002023196	A2	20020321	WO 2001-US42096	20010910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, <del>DK</del> , DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,				
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,				
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 2002055180	A1	20020509	US 2001-903061	20010711
AU 2001095033	A5	20020326	AU 2001-95033	20010910
EP 1320755	A2	20030625	EP 2001-975741	20010910

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

US 2000-231887P P 20000911

US 2001-903061 A 20010711

WO 2001-US42096 W 20010910

AB A homogeneous assay for detg. the deoxynivalenol (DON) content in grains uses the technique of fluorescence polarization. A grain ext. is prepd. by shaking a crushed grain sample with water. A mixt. is prepd. by combining the grain ext. with a tracer and with **monoclonal antibodies** specific to DON. The tracer is able to bind to the **monoclonal antibodies** to produce a detectable change in fluorescence polarization. The tracer is prepd. by conjugating DON to a suitable fluorophore. The fluorescence polarization of the mixt. is measured. The DON concn. of the mixt. may be calcd. using a std. curve obtained by measuring the fluorescence polarization of a series of DON solns. of known concn. Thus, the tracer is DON conjugated to 6-aminofluorescein.

IT **88337-96-6**, 15-Acetyldeoxynivalenol

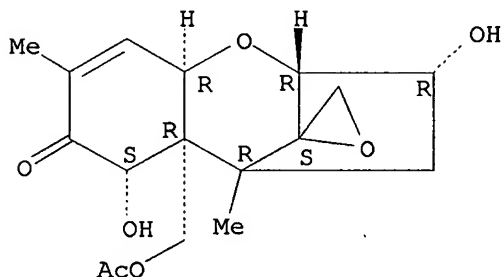
RL: ANT (Analyte); ANST (Analytical study)

(fluorescence polarization-based homogeneous assay for deoxynivalenol detn. in grains)

RN 88337-96-6 HCAPLUS

CN Trichothec-9-en-8-one, 15-(acetyloxy)-12,13-epoxy-3,7-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 3 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:145037 HCAPLUS

DOCUMENT NUMBER: 136:246591

TITLE: Rapid Fluorescence Polarization **Immunoassay**  
for the Mycotoxin Deoxynivalenol in Wheat

AUTHOR(S): Maragos, Chris M.; Plattner, Ronald D.

CORPORATE SOURCE: Mycotoxin Research Unit, National Center for  
Agricultural Utilization Research, USDA/ARS, Peoria,  
IL, 61604, USASOURCE: Journal of Agricultural and Food Chemistry (2002),  
50(7), 1827-1832

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The fungus *Fusarium graminearum*, a pathogen of both wheat and maize, produces a toxin, deoxynivalenol (DON), that causes disease in livestock. A rapid test for DON in wheat was developed using the principle of fluorescence polarization (FP) **immunoassay**. The assay was based on the competition between DON and a novel DON-fluorescein tracer (DON-FL2) for a DON-specific **monoclonal antibody** in soln. The method, which is a substantial improvement over our previous DON FP **immunoassay**, combined a rapid (3 min) extn. step with a rapid (2 min) detection step. A series of naturally contaminated wheat and maize samples were analyzed by both FP **immunoassay** and liq. chromatog. (HPLC-UV). For wheat the HPLC-UV and FP methods agreed well (linear regression  $r^2 = 0.936$ ), but for maize the two methods did not ( $r^2 = 0.849$ ). We conclude that the FP method is useful for screening wheat, but not maize, for DON.

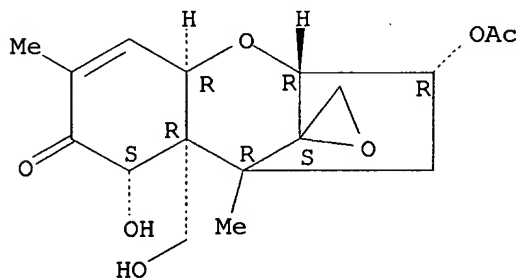
IT **50722-38-8**, 3-Acetyl-deoxynivalenol **88337-96-6**,  
15-Acetyl-deoxynivalenol

RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(mycotoxin deoxynivalenol in wheat and corn detd. by rapid fluorescence polarization **immunoassay** and cross-reactivity)

RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

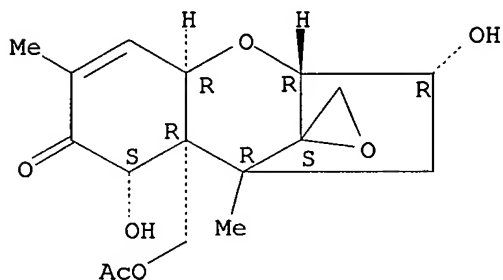
Absolute stereochemistry.



RN 88337-96-6 HCAPLUS

CN Trichothec-9-en-8-one, 15-(acetyloxy)-12,13-epoxy-3,7-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS



RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 4 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:73046 HCAPLUS  
 DOCUMENT NUMBER: 136:84691  
 TITLE: Process for producing **antibody** against T-2 toxin  
 INVENTOR(S): Yun, Hwa Jung  
 PATENT ASSIGNEE(S): S. Korea  
 SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given  
 CODEN: KRXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Korean  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2000021426	A	20000425	KR 1998-40517	19980929
PRIORITY APPLN. INFO.:			KR 1998-40517	19980929

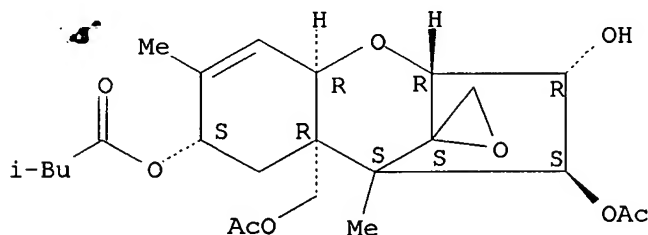
AB PURPOSE: Provided is a process for producing **monoclonal antibody** in large quantities, which specifically binds with T-2 toxin and can be effectively used to detection of the toxin produced by fungi contamination in cereals or livestock feeds. CONSTITUTION: A process of **antibody** prodn. comprises: producing T-2 hemisuccinate(T-2HS) conjugate then T-2HS-**BSA** or T-2HS-**HRP** is produced chem. by crosslinking T-2HS with **bovine serum albumin (BSA)** or horse radish peroxidase(**HRP**), injecting the toxin-protein conjugate into a mouse, booting the **antibody** prodn. by a second injection, collecting immune cells from spleen of the booster mouse, fusing the immune cells with SP2/O-Ag 14 mouse myeloma cells to produce hybridoma, screening hybridoma cell lines producing **monoclonal antibody** against T-2 toxin, reintroducing the selected hybridoma cells into abdominal cavity of Balb/c mouse for large prodn. of **antibody**, collecting the abdominal dropsy, filter-harvesting the **antibodies**. T-2 toxin within cereals or feeds can be easily analyzed quant. or qual. using this **monoclonal antibody** by ELISA (ELISA).

IT 21259-20-1, T-2 Toxin  
 RL: ANT (Analyte); ANST (Analytical study)  
 (monoclonal antibodies to T-2 toxin and their prepn.)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 5 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:207024 HCAPLUS

DOCUMENT NUMBER: 134:349226

TITLE: Effects of mycotoxins on human immune functions in vitro

AUTHOR(S): Berek, L.; Petri, I. B.; Mesterhazy, A.; Teren, J.; Molnar, J.

CORPORATE SOURCE: Blood Transfusion Center, Albert Szent-Gyorgyi Medical University, Szeged, H-6720, Hung.

SOURCE: Toxicology in Vitro (2001), 15(1), 25-30

CODEN: TIVIEQ; ISSN: 0887-2333

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The **immunol.** effects of Fusarium mycotoxins were tested on human peripheral blood mononuclear cells from different blood donors. In the present study the authors investigated deoxynivalenol, 3-acetyldeoxynivalenol, fusarenon-X, T-2 toxin, zearalenone, .alpha.-zearalenol, .beta.-zearalenol, and nivalenol for their effects on T and B cells in a proliferation assay, **antibody**-dependent cellular cytotoxicity, and natural killer (NK) cell activity on human peripheral blood mononuclear cells. The concns. applied in the expts. were similar to those which can be found in normal human peripheral blood system (0.2-1800 ng/mL). Among the 8 mycotoxins tested, T-2 toxin, fusarenon X, nivalenol, and deoxynivalenol exerted the highest **immunosuppressing** effect on human peripheral blood mononuclear cells in vitro. Mycotoxin-induced **immunosuppression** was manifested as depressed T or B lymphocyte activity. Furthermore, by virtue of inhibition of NK cell activity, the protection against tumor development may also be attenuated.

IT 21259-20-1, T-2 Toxin 23255-69-8, Fusarenon-X

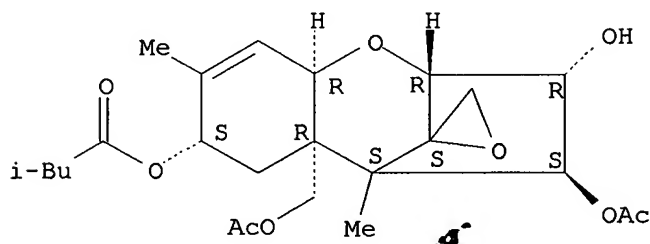
50722-38-8, 3-Acetyldeoxynivalenol

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (Fusarium mycotoxin effects on human immune functions in vitro)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

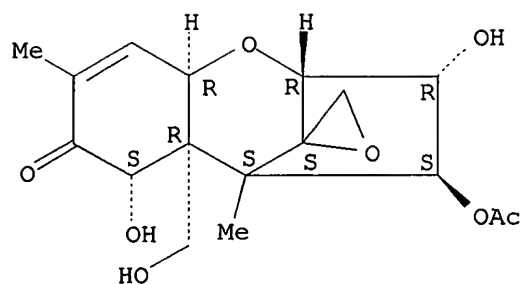
Absolute stereochemistry.



RN 23255-69-8 HCAPLUS

CN Trichothec-9-en-8-one, 4-(acetyloxy)-12,13-epoxy-3,7,15-trihydroxy-, (3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

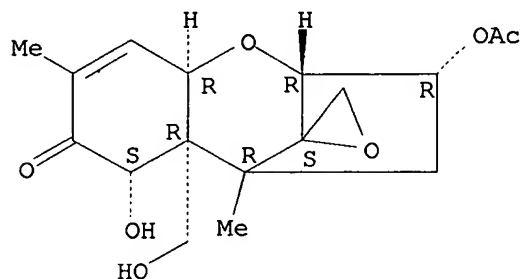
Absolute stereochemistry.



RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 6 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:185909 HCAPLUS

DOCUMENT NUMBER: 134:221453

TITLE: **Monoclonal antibodies** specific for  
trichothecene mycotoxin and their use in detecting  
toxin pollution in products and environment  
INVENTOR(S): Kohno, Hiroaki; Hashimoto, Yuriko; Yoshizawa, Takumi  
PATENT ASSIGNEE(S): Kyowa Medex Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 56 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001018196	A1	20010315	WO 2000-JP6100	20000907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 EP 1215282 A1 20020619 EP 2000-957006 20000907

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL

PRIORITY APPLN. INFO.: JP 1999-253443 A 19990907  
 JP 1999-310185 A 19991029  
 WO 2000-JP6100 W 20000907

OTHER SOURCE(S): MARPAT 134:221453

AB **Monoclonal antibodies** having high affinity for trichothecene mycotoxins, DON (deoxynivalenol), NIV(nivalenol) and T-2 toxin are created and trichothecene mycotoxins are embracively quantitated by using the **antibodies**. Mycotoxin I (R1-R4 = acyloxy, H, OH; Z1 = Me2CHCH2COO and Z2 = H or Z1 and Z2 are replaced by :O; at least one of R1-R4 is OH) was used as **antigen** to create **monoclonal antibodies**. The resulting **monoclonal antibodies** can specifically recognize mycotoxin II (I; R1, R3, R4 = OH, R2=CH3COO, Z1 + Z2 = :O), mycotoxin III (I; R1, R3, R4 = OH, acyloxy; R2b = H, OH, acyloxy; at least one of R1, R3 and R4 is acyloxy when R2 = H, OH; Z1 + Z2 = :O), and mycotoxin IV (I; R1-R3 = OH, acyloxy; R4 = H; Z1 = Me2CHCH2COO, Z2 = H and at least one of R1-R3 is acyloxy). These **monoclonal antibodies** showed higher affinity and specificity for DON, NIV and T-2 than the ones used before. This invention also provide the method for sampling and detecting mycotoxin producing fungi from product and environment.

IT **21259-20-1**, T-2 Toxin

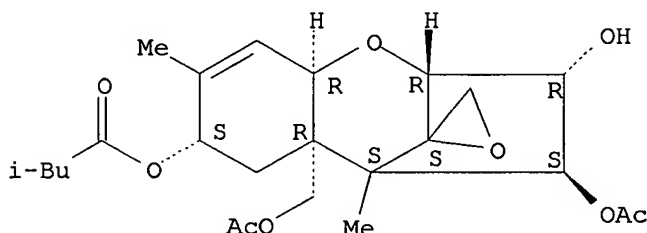
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(**monoclonal antibodies** specific for trichothecene mycotoxin and their use in detecting toxin pollution in products and environment)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THIS FORMAT

L41 ANSWER 7 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:757166 HCAPLUS

DOCUMENT NUMBER: 134:41274

TITLE: Detection of T-2 Toxin in Different Cereals by  
 Flow-Through Enzyme **Immunoassay** with a  
 Simultaneous Internal Reference

AUTHOR(S): Sibanda, Liberty; De Saeger, Sarah; Van Peteghem, Carlos; Grabarkiewicz-Szczesna, Jadwiga; Tomczak, Magdalena  
 CORPORATE SOURCE: Laboratory of Food Analysis Faculty of Pharmaceutical Sciences, Gent University, Ghent, B-9000, Belg.  
 SOURCE: Journal of Agricultural and Food Chemistry (2000), 48(12), 5864-5867  
 CODEN: JAFCAU; ISSN: 0021-8561  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB In most previously described membrane-based **immunoassays** a sep. neg. control assay is always carried out to evaluate the performance of the assay. To overcome this problem, a membrane-based flow-through enzyme **immunoassay** with an internal control has been developed for the detection of T-2 toxin in cereals (patent pending). An **Immunodyne** ABC membrane was coated with 2 .mu.L of goat anti-**horseradish** peroxidase (**HRP**) (internal control spot) (1:1000) and 2 .mu.L of rabbit anti-mouse (test spot) (undiluted) **Igs**, and the free binding sites were blocked. In addn. to the **antibody**-coated **Immunodyne** ABC membrane, the assay also comprises a plastic snap-fit device, absorbent cotton wool, mouse anti-T-2 **monoclonal antibodies** (Mab), and T-2-**HRP** conjugate. The color intensity (.DELTA.E\*ab) of the internal control and that of the neg. sample showed no difference (P > 0.05), whereas there was a significant difference between the internal control and pos. samples (P < 0.05). The min. detectable limit that could be visually detected with confidence was 50 ng of T-2 per g of cereal sample.

IT 21259-20-1, t-2 Toxin

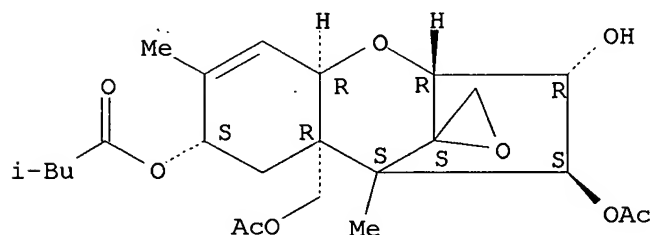
RL: ANT (Analyte); ANST (Analytical study)

(T-2 Toxin detection in different cereals by flow-through enzyme **immunoassay** with a simultaneous internal ref.)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 8 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:711320 HCAPLUS

DOCUMENT NUMBER: 134:192398

TITLE: **Immunodiagnosics** for food and feed safety

AUTHOR(S): Barna-Vetro, Ildiko; Balazs, Ervin; Solti, Laszlo

CORPORATE SOURCE: Diagnostic Lab., Godollo, H-2101, Hung.

SOURCE: American Laboratory (Shelton, Connecticut) (2000), 32(17), 64, 66  
 CODEN: ALBYBL; ISSN: 0044-7749

PUBLISHER: International Scientific Communications, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

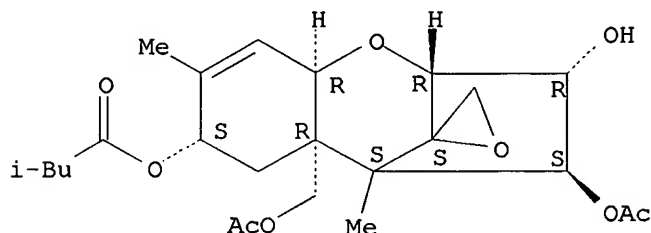
AB Food and feed safety is one of the most important areas of research and development. It has been the focus of the Agricultural Biotechnol. Center in Hungary. Fungi are heterotrophic microorganisms that can be found throughout nature. During propagation, they produce secondary metabolites called mycotoxins that are very poisonous. In temperate climates, the most frequent Fusarium toxins are T-2, zearalenone (F-2), deoxynivalenol (DON), diacetoxyscirpenol, and fumonisins. The acceptable mycotoxin limits according to the Hungarian Mycotoxin Std. are presented in a table. In order to enforce these limits, reliable methods of detection and detn. are required. Since enzyme **immunoassay** is inexpensive and fulfills the requirements of sensitivity, simplicity and reliability, ELISA tests based on **monoclonal antibodies** were developed for mycotoxin anal. As a result, five mycotoxin kits have been developed and are com. available.

IT 21259-20-1, Mycotoxin T-2  
 RL: ANT (Analyte); POL (Pollutant); ANST (Analytical study); OCCU (Occurrence)  
 (**immunodiagnosics** of mycotoxins for food and feed safety)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 9 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:129167 HCAPLUS

DOCUMENT NUMBER: 128:253964

TITLE: T-2 toxin induces thymic apoptosis in vivo in mice

AUTHOR(S): Islam, Zahidul; Nagase, Masahiro; Yoshizawa, Takumi; Yamauchi, Koh-En; Sakato, Nobuo

CORPORATE SOURCE: Faculty of Agriculture, Kagawa University, Kagawa, 761-0795, Japan

SOURCE: Toxicology and Applied Pharmacology (1998), 148(2), 205-214  
 CODEN: TXAPA9; ISSN: 0041-008X

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A single i.p. injection of T-2 toxin (0.35, 1.75, or 3.5 mg/kg body wt.) induced time- and dose-dependent thymic atrophy in young female BALB/c mice. T-2 toxin (1.75 mg/kg) induced maximal atrophy by day 3 with complete recovery by day 7. Flow cytometric anal. showed that the CD4+CD8+ double pos. thymocyte population decreased markedly. Histopathol. examn. of the thymus indicated that the pattern of cell death in the thymocytes had a characteristic apoptotic morphol. with cell shrinkage and nuclear condensation. The in vivo effects of T-2 toxin included the induction of DNA fragmentation of .apprx.200 base pairs in ladder form and cell death in thymocytes. Furthermore, flow cytometric anal. of PI-stained thymocytes from animals dosed with T-2 toxin revealed the formation of apoptotic cells. Of nine kinds of trichothecene mycotoxins tested, T-2 toxin appeared to be the most potent agent to induce apoptosis in the thymus. We sought insight into the mechanism of T-2 toxin-induced apoptosis in vivo. Administration of the protein synthesis inhibitor, CHX (15 mg/kg i.p.), 5 min after T-2 toxin (1.75 mg/kg i.p.) inhibited the induction of apoptosis in thymocytes, suggesting that the de novo protein synthesis was necessary. By using adrenalectomized mice and anti-TNF-.alpha. **antibody**-injected mice, it was shown that neither endogenous glucocorticoid nor TNF-.alpha. appeared to be involved in the apoptotic process. Taken together, these findings suggest that T-2 toxin-induced thymic atrophy is assocd. with cell death through a mechanism of apoptosis.

IT 21259-20-1, T-2 Toxin 23255-69-8, Fusarenon X

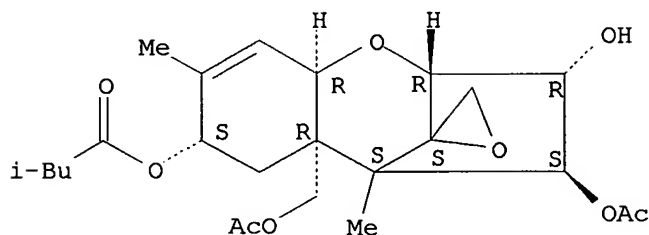
50722-38-8, 3-Acetyldeoxynivalenol

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(T-2 toxin induction of thymic apoptosis)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

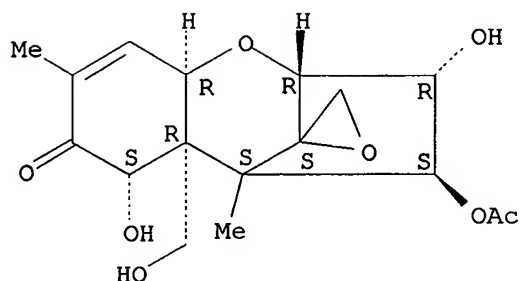
Absolute stereochemistry.



RN 23255-69-8 HCAPLUS

CN Trichothec-9-en-8-one, 4-(acetyloxy)-12,13-epoxy-3,7,15-trihydroxy-,  
(3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

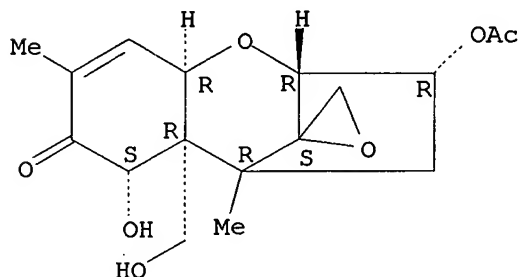
Absolute stereochemistry.



RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 10/ OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:660090 HCAPLUS

DOCUMENT NUMBER: 127:274937

TITLE: Development of enzyme-linked **immunosorbent**  
assay system for the detection of deoxynivalenol in  
cornAUTHOR(S): Lee, Hyang-Burn; Shon, Dong-Hwa; Kosaka, Kunio; Ueno,  
YoshioCORPORATE SOURCE: Food Chemistry and Physics Division, Korea Food  
Research Institute, Songnam, 463-420, S. KoreaSOURCE: Sanop Misaengmul Hakhoechi (1997), 25(4), 414-419  
CODEN: SMHAEH; ISSN: 0257-2389

PUBLISHER: Korean Society for Applied Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB To develop an ELISA for the detn. of Fusarium mycotoxin deoxynivalenol  
(DON) in corn, we produced a specific **monoclonal antibody** and established optimal ELISA conditions. After the  
spleen cells from mice immunized with DON-**bovine serum**  
albumin conjugate were fused with SP2/O myeloma cells, hybridoma 3G7 cells  
producing anti-DON **antibodies** were screened by ELISA. The std.  
curve of competitive direct ELISA (cdELISA), using 3G7 **monoclonal**  
**antibody** and DON-**horseradish** peroxidase conjugate,  
showed a detection range of 3-3,000 ng DON/mL (ppb). The



**monoclonal antibody** showed some cross-reactivities against DON analogs such as 15-acetyl-DON (110%), nivalenol (5.0%), 3-acetyl-DON (1.7%), fusarenon-x (0.72%), and T-2 toxin (0.59%). When the cdELISA was used on spiked corn samples after extg. with 60% methanol and dilg. 5-fold with a washing buffer, the assay recoveries of DON were 313, 163, 106, and 88.9% (av., 168%) for the spike levels of 200, 600, 2,000, and 6,000 ng/g, resp. For the quantitation of DON in stored corn, 30 samples were kept under cold and room temp. and were subsequently assayed by cdELISA. The mean detected concns. were 595 (detection range, 0-2,750) and 2,448 (detection range, 0-4,500) ppb, resp.

IT 21259-20-1, t 2 23255-69-8, Fusarenon x  
50722-38-8, 3-Acetyl deoxynivalenol 88337-96-6,  
15-Acetyl deoxynivalenol

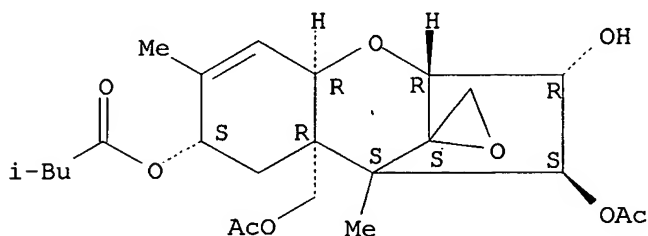
RL: ANT (Analyte); ANST (Analytical study)

(development of ELISA system for detection of deoxynivalenol mycotoxin in corn)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

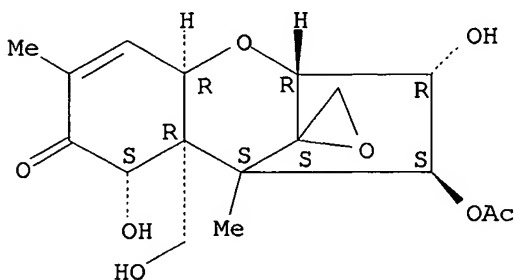
Absolute stereochemistry.



RN 23255-69-8 HCAPLUS

CN Trichothec-9-en-8-one, 4-(acetyloxy)-12,13-epoxy-3,7,15-trihydroxy-,  
(3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

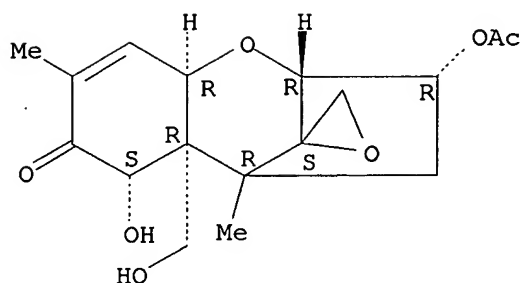
Absolute stereochemistry.



RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

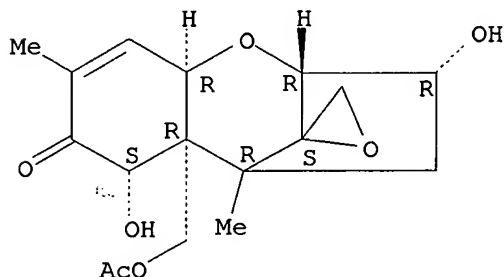
Absolute stereochemistry.



RN 88337-96-6 HCAPLUS

CN Trichothec-9-en-8-one, 15-(acetyloxy)-12,13-epoxy-3,7-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 11 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:615605 HCAPLUS

DOCUMENT NUMBER: 125:267642

TITLE: Immunodiagnosics for mycotoxin  
determinationAUTHOR(S): Barna-vetro, I.; Solti, L.; Gyoengyoesi, H. A.; Szabo,  
J.; Woelfling, A.CORPORATE SOURCE: Agricultural Biotechnol. Cent., Inst. Animal Scis.,  
Godollo, H-2101, Hung.

SOURCE: Novenyvedelem (Budapest) (1996), 32(8), 389-400

CODEN: NVVDAW; ISSN: 0133-0829

PUBLISHER: Agroinform Kiado es Nyomda

DOCUMENT TYPE: Journal

LANGUAGE: Hungarian

AB The aim of this work was the setup, optimization, and validation of direct, competitive ELISA tests for detn. of Fusarium mycotoxins (T-2 and F-2) based on **monoclonal antibodies**. The ELISA test was applied for quant. detn. of mycotoxins in different cereals in food and feedstuffs. Among the several extn. solvents tried, the 89% acetonitrile/10 part 0.5% KCl/1 part 6% sulfuric acid were chosen. The exts. can be used without further cleanup in the ELISA test. The mean recoveries from cereals infected with 100-2000 ng/g T-2 and 50-500 ng/g F-2 were 85% and 91%, resp. Detection limit for T-2 is 50 ng/g, that of F-2 is 25 ng/g. The reagent kits named Toxiklon T-2 and Toxiklon zearalenone have been commercialized. The kits are flexible.

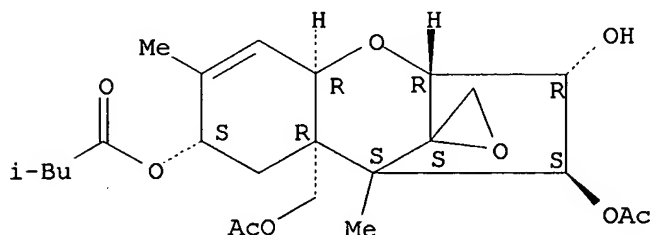
IT 21259-20-1, T-2 Toxin

RL: ANT (Analyte); ANST (Analytical study)  
(immunodiagnos~~t~~ics for mycotoxin detn.)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 12 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1995:591721 HCAPLUS

DOCUMENT NUMBER: 122:313151

TITLE: Production of **Monoclonal Antibodies**  
for the Specific Detection of Deoxynivalenol and  
15-Acetyldeoxynivalenol by ELISA

AUTHOR(S): Sinha, Ramesh C.; Savard, Marc E.; Lau, Rhoda  
CORPORATE SOURCE: Plant Research Centre, Agriculture Canada, Ottawa, ON,  
K1A 0C6, Can.

SOURCE: Journal of Agricultural and Food Chemistry (1995),  
43(6), 1740-4

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB **Monoclonal antibodies** (MABs) against the mycotoxin  
deoxynivalenol (DON) were produced using an **immunogen** consisting  
of DON conjugated to **bovine serum albumin (BSA)**  
) through its 15-hydroxyl group (15-DON-**BSA**). From 80  
hybridomas, the four best stabilized hybridoma cell lines secreting  
anti-DON MABs of subclass IgG1 were used to prep. ascites in mice. The  
MABs purified from ascites were used to detect DON by direct competitive  
ELISA. The MABs were very specific to 15-acetyl-DON and DON but had  
negligible binding to 3-acetyl-DON, T-2 toxin, sambucinol, and  
neosolaniol. The effective range of detection was 0.05-20 .mu.g/mL of DON  
or 15-acetyl-DON. These **antibodies** also showed a high stability  
toward grain exts. contg. up to 40% methanol.

IT **88337-96-6**, 15-Acetyldeoxynivalenol

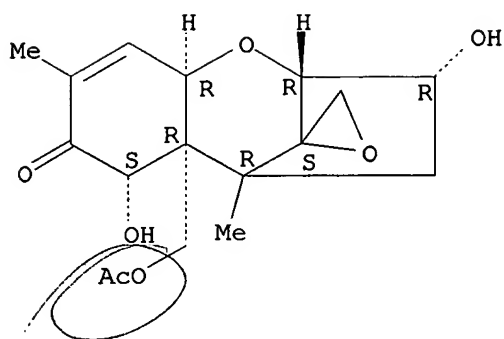
RL: ANT (Analyte); POL (Pollutant); ANST (Analytical study); OCCU  
(Occurrence)

(prodn. of **monoclonal antibodies** for the specific  
detection of deoxynivalenol and 15-acetyldeoxynivalenol by ELISA)

RN 88337-96-6 HCAPLUS

CN Trichothec-9-en-8-one, 15-(acetyloxy)-12,13-epoxy-3,7-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 13 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:679172 HCAPLUS

DOCUMENT NUMBER: 121:279172

TITLE: Food quality on the farm: **immunological**  
detection of mycotoxins in New Zealand pastoral  
agriculture

AUTHOR(S): Garthwaite, Ian; Sprosen, Jan; Briggs, Lyn; Collin,  
Roger; Towers, Neale

CORPORATE SOURCE: Fungal Plant Toxin Group, Ruakura Agric. Cent.,  
Hamilton, N. Z.

SOURCE: Food and Agricultural Immunology (1994), 6(2), 123-9  
CODEN: FAIMEZ; ISSN: 0954-0105

PUBLISHER: Carfax

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The anal. of toxins from herbage samples by conventional means (such as liq. chromatog. and high-pressure liq. chromatog.) is often difficult, slow, and expensive. Consequently, the authors developed **immunoassays** which permit anal. of simple exts. and allow the rapid quantification of mycotoxins in large nos. of herbage samples. Enzyme-linked **immunosorbent** assays using both polyclonal and **monoclonal antibodies** for the measurement of Fusarium toxins (zearalenone and the trichothecenes), sporidesmin, and the indole diterpenoids and ergot alkaloids of endophytic fungi are detailed. Other applications using **immunoassay** techniques are also described.

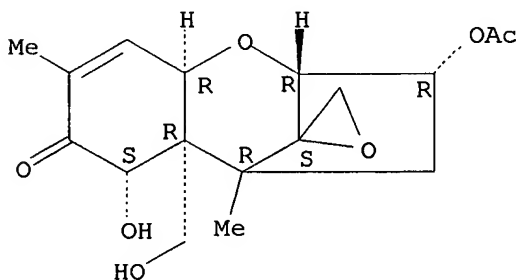
IT 50722-38-8, 3-Acetyl deoxynivalenol

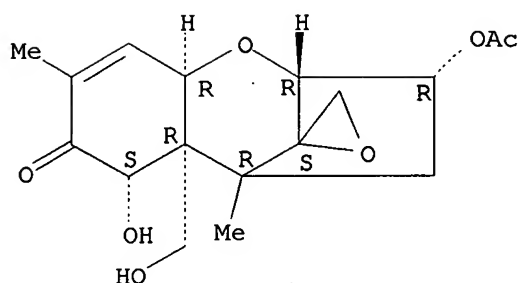
RL: ANT (Analyte); ANST (Analytical study)  
(mycotoxins detn. in pasture feeds by ELISA)

RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L41 ANSWER 14 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:161902 HCAPLUS

DOCUMENT NUMBER: 120:161902

TITLE: **Monoclonal antibody**-based

enzyme-linked **immunosorbent** assay of

Fusarium T-2 and zearalenone toxins in cereals

AUTHOR(S): Barna-Vetro, Ildiko; Gyongyosi, Agnes; Solti, Laszlo

CORPORATE SOURCE: Agric. Biotechnol. Cent., Inst. anim. Sci., Godollo, H-2101, Hung.

SOURCE: Applied and Environmental Microbiology (1994), 60(2), 729-31

CODEN: AEMIDF; ISSN: 0099-2240

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Direct, competitive enzyme-linked **immunosorbent** assays (ELISAs) with **monoclonal antibodies** have been developed for quant. detn. of trichothecene T-2 toxin (T-2), and zearalenone (F-2) from different cereals. Among the several extn. solvents tried, 89% acetonitrile with additives was chosen. The exts. were then used without cleanup in the ELISA. With appropriate diln. of the samples (1:25 or 1:50), the matrix effects caused by lipid and/or protein content of the samples can be diminished to the extent that the assay is no longer impaired. The mean recoveries from cereals infected with 100 to 2000 ng of T-2 and 50 to 500 ng of F-2 per g were 85 and 91%, resp. The measuring range of the T-2 test is 100 to 2000 ng/g, and that of the F-2 test is 25 to 400 ng/g. The mean within-assay and interassay coeffs. of variation of std. curves are both less than 10%. According to recovery results with artificially infected cereals, the authors' tests proved to be suitable for rapid screening of food and feed samples for the presence of T-2 and F-2 toxins.

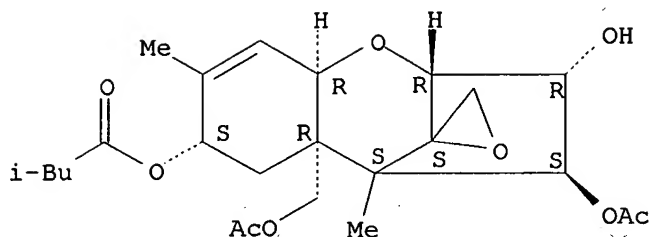
IT 21259-20-1, T-2 Toxin

RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in cereals by ELISA)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 15 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:25303 HCAPLUS

DOCUMENT NUMBER: 120:25303

TITLE: Comparative effects of **immunotoxic** chemicals on in vitro proliferate responses of human and rodent lymphocytes

AUTHOR(S): Lang, Dagmar S.; Meier, Kristen L.; Luster, Michael I.

CORPORATE SOURCE: Environ. Immunity Sect., Natl. Inst. Environ. Health Sci., Research Triangle Park, NC, 27709, USA

SOURCE: Fundamental and Applied Toxicology (1993), 21(4), 535-45

CODEN: FAATDF; ISSN: 0272-0590

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In order to detn. the comparability of human and rodent in vitro systems, the direct effects of various therapeutic or environmental chems. on proliferative responses of lymphocytes of mouse, rat, and human origins were examd. and analyzed by a detailed statistical approach. Four compds. of diverse structure and mechanism of action which are known to impair lymphocyte transformation, such as hydroquinone, T-2 toxin, lead nitrate, as well as the widely used **immunosuppressive** drug cyclosporin A, were chosen as model test substances. T cells were stimulated by phytohemagglutinin as well as **monoclonal antibodies** directed at the T cell receptor/CD3 complex, while B cells were activated by the T-independent mitogens, including Staphylococcus aureus cells, Escherichia coli lipopolysaccharide, and Salmonella typhimurium mitogen with specificity for human, mouse, and rat lymphocytes, resp. In almost all cases the chems. altered lymphoproliferative responses in a concn.-related manner in all 3 species. In general, overall similarities in the relative sensitivity of lymphoblastogenesis were obtained when the human dose-response curves were compared to the rodent response curves. Frequent, statistically significant species-dependent discrepancies of the overall response curves between mice and rats were obsd. Large, statistically significant differences were obsd. for inorg. lead, revealing obvious divergences of the effect patterns in all cases, across all species. In this case, rodent species, esp. the rat, were very sensitive to **immunomodulation** by lead, whereas human cells were relatively resistant. It is suggested that direct interspecies comparisons of **immunol.** effects due to chem. treatment in vitro can provide a greater understanding of the relationships between animal and human data, which will improve the confidence of extrapolation from findings in lab. animals to human health risk.

IT 21259-20-1, T 2 Toxin

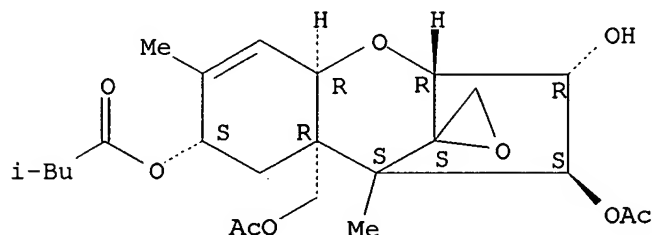
RL: BIOL (Biological study)

(lymphocyte proliferation response to, of humans and lab. animals)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 16 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:420098 HCAPLUS

DOCUMENT NUMBER: 119:20098

TITLE: Antitumor activity of T-2 toxin-conjugated A7  
**monoclonal antibody** (T-2-A7 MoAb)  
against human colon carcinoma

AUTHOR(S): Kojima, Shuji; Nakamura, Namie; Ueno, Yoshio;  
Yamaguchi, Toshiharu; Takahashi, Toshio

CORPORATE SOURCE: Res. Inst. Biosci., Sci. Univ. Tokyo, Chiba, Japan

SOURCE: Natural Toxins (1993), 1(4), 209-15

CODEN: NATOEE; ISSN: 1056-9014

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monoclonal A7 (A7 MoAb), from splenocytes of a mouse immunized against human colorectal carcinoma, was used as a T-2 toxin (T-2) carrier targeting colon cancer. T-2 was converted to T-2 hemiglutarate by glutaric anhydride treatment, and T-2-A7 MoAb conjugates contg. up to 20 T-2 per **antibody** mol. were obtained from the **antibody** and T-2 hemiglutarate activated with N-hydroxysuccinimide. The in vitro cytotoxicity against human colon cancer (LS174T) cells indicated that the conjugates were markedly less toxic than the toxin itself. The **immunoreactivity** was evaluated from the in vitro binding activity of A7 MoAb with LS174T cells, and from the in vivo localization in LS174T-bearing nude mice; it remained essentially intact after conjugation with T-2. The efficacy of the T-2-A7 MoAb conjugate was tested against LS174T-bearing nude mice. The conjugate significantly suppressed the growth of the tumor in comparison with both phosphate-buffered saline and free T-2. These results suggest that the conjugate of T-2 with A7 MoAb might be useful as a selective **immunotoxin** for cancer **immunotherapy**, with less serious side effects than with T-2.

IT 21259-20-1DP, T-2 Toxin, conjugates with **antibodies** to colorectal carcinoma

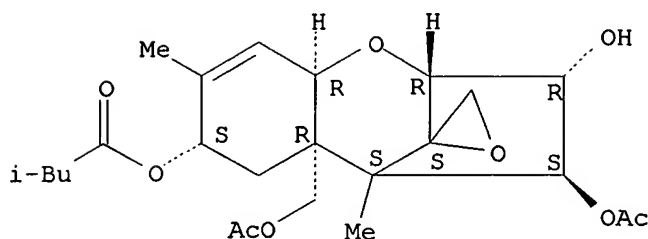
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and antitumor activity of, against human colon carcinoma)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 17 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:141312 HCAPLUS

DOCUMENT NUMBER: 118:141312

TITLE: **Monoclonal antibody** for  
determination of fusarium T-2 toxin by ELISA

AUTHOR(S): Gyongyosi Horvath, Agnes; Barna-Vetro, Ildiko; Solti, Laszlo

CORPORATE SOURCE: Allabiotechnol. Intez., Allabiotechnol. Intez.

Mezogazd. Biotechnol. Kutatokozp., Godollo, Hung.

SOURCE: Allattenyesztes es Takarmanyozas (1992), 41(4), 329-36  
CODEN: ATA KDW; ISSN: 0230-1814

DOCUMENT TYPE: Journal

LANGUAGE: Hungarian

AB Spleen cells from mice immunized with Fusarium T 2 toxin hemisuccinate-bovine serum albumin, were fused with mouse myeloma cells. The hybrid cells obtained were selected on a hypoxanthine-aminopterin-thymidine medium, followed by ELISA screening. Cells from the colonies with highest **antibody** prodn. were cloned, and the cloned cells were introduced into the abdominal cavity of mice for ascitic fluid prodn. The **antibodies** obtained were IgG1 heavy-chain subclass with .kappa.-type light chain. The **antibody** showed little-to-moderate cross-reaction with related toxins.

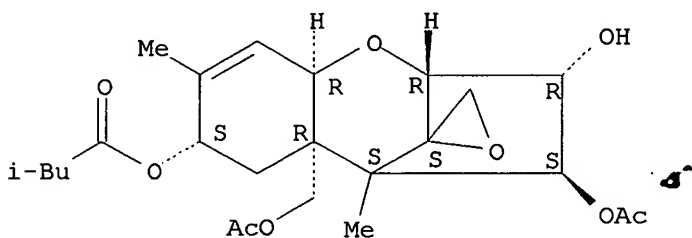
IT 21259-20-1

RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, by ELISA)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 18 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:622893 HCAPLUS

DOCUMENT NUMBER: 115:222893



TITLE: Selective antitumor activity of T-2 toxin-  
**antibody** conjugates

AUTHOR(S): Ohtani, Katsumi; Ueno, Yoshio

CORPORATE SOURCE: Fac. Pharm. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE: Microb. Toxins Foods Feeds: Cell. Mol. Modes Action,  
[Proc. Symp.] (1990), Meeting Date 1988, 403-9.  
Editor(s): Pohland, Albert E.; Dowell, Vulus R., Jr.;  
Richard, John L. Plenum: New York, N. Y.  
CODEN: 57HZAK

DOCUMENT TYPE: Conference

LANGUAGE: English

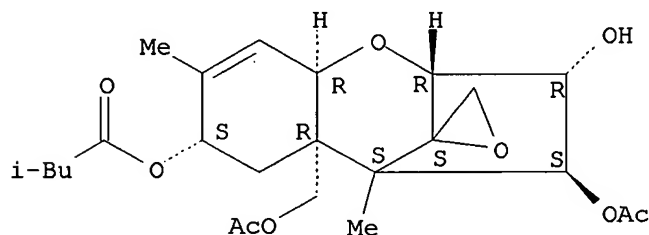
AB Conjugates of T-2 toxin (produced by *Fusarium* species) with  
**monoclonal antibodies** to EL-4 thymoma cells inhibited  
the growth of EL-4 cells both in vitro and in mice.

IT **21259-20-1D, monoclonal antibody** conjugates  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(neoplasm inhibition by)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 19 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:443910 HCAPLUS

DOCUMENT NUMBER: 115:43910

TITLE: Structure/function studies of T-2 mycotoxin with a  
**monoclonal antibody**

AUTHOR(S): Chanh, Tran C.; Hewetson, John F.

CORPORATE SOURCE: Dep. Virol. Immunol., Southwest Found. Biomed. Res.,  
San Antonio, TX, USA

SOURCE: Immunopharmacology (1991), 21(2), 83-9  
CODEN: IMMUDP; ISSN: 0162-3109

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A BALB/C murine **monoclonal antibody** (mAb) specific for  
the trichothecene mycotoxin T-2 was generated. The anti-T-2  
**antibody**, designated HD11, can detect T-2 in the nanogram range  
employing an enzyme-linked **immuno**-sorbent assay. The HD11  
**antibody** at 1 .mu.g/mL completely protected against the  
T-2-induced cytotoxicity of the human epidermoid carcinoma cell lines  
Hep-2 and KB. Fine specificity anal. was performed using 10 structurally  
related T-2 metabolites (I, R1 and R2 = H, OH, OAc; R3 = OH, OAc; R4 = H,  
OH; R5 = H, OH, O2CCH2CHMe2) to inhibit the specific binding of HD11 to

T-2 mycotoxin. The results suggest a binding specificity of the protective HD11 **antibody** for the bulky hydrophobic alkyl at R5 and the Ac at R2 and R3 or the T-2 mycotoxin mol. HD11 anti-T-2 mAb, which bound to the T-2 metabolite, acetyl T-2 I (R1-R3 = OAc; R4 = H; R5 = O2CCH2CHMe2), efficiently neutralized its in vitro cytotoxicity. On the other hand, the cytotoxicity of the T-2 metabolites, neosalaniol and 3' OH HT-2, both of which lack the alkyl at R5 and which did not bind to HD11, was unaffected by HD11.

IT 21259-21-2 26934-87-2 98813-17-3

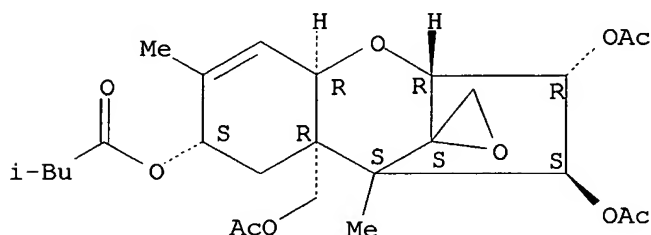
RL: BIOL (Biological study)

(as mycotoxin T-2 metabolite, structure-function studies of, using **monoclonal antibody**)

RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

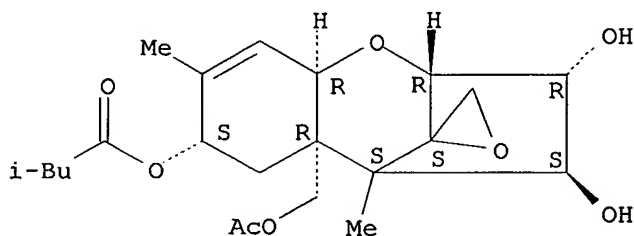
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

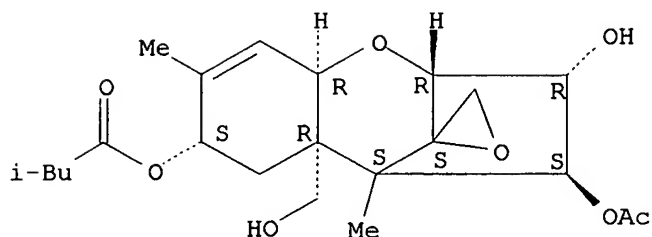
Absolute stereochemistry.



RN 98813-17-3 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4-acetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **21259-20-1**, T-2 Mycotoxin **21259-20-1D**, T-2 Mycotoxin, metabolites

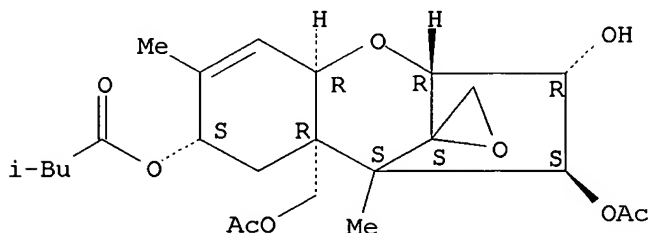
RL: BIOL (Biological study)

(structure-function studies of, using **monoclonal antibody**)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

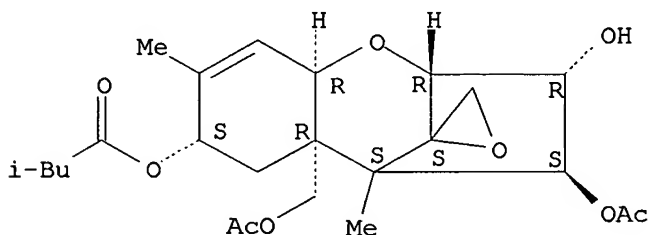
Absolute stereochemistry.



RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 20 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:402568 HCAPLUS

DOCUMENT NUMBER: 115:2568

TITLE: Anti-idiotypic-based vaccines against biological toxins

AUTHOR(S): Chanh, Tran C.; Siwak, Edward B.; Hewetson, John F.

CORPORATE SOURCE: Dep. Virol. Immunol., Southwest Found. Biomed. Res., San Antonio, TX, 78284, USA

SOURCE: Toxicology and Applied Pharmacology (1991), 108(2), 183-93

CODEN: TXAPA9; ISSN: 0041-008X

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

AB A review with 33 refs. Biol. toxins produced by living organisms represent 1 of the major sources of contamination of stored grain and agricultural products, and other food sources. The majority of these biol. toxins are highly lethal, nonproteinaceous, low-mol.-wt. chem. compds. which exert their potent toxicity through a variety of mechanisms. Because of their small size, they generally do not induce a significantly high affinity protective **antibody** response upon toxin exposure, even when conjugated to large protein carriers which enhance their immunogenicity. Moreover, the very toxic nature of biol. toxins precludes their use as **immunogens** in the induction of protective immunity. To circumvent this difficulty, an attempt was made to develop **antibody** (anti-idiotypic)-based vaccines against a protein synthesis inhibitor, the trichothecene mycotoxin T-2, and the Na channel blockers tetrodotoxin and saxitoxin. Protective **monoclonal** antitoxin **antibodies** were first generated and then used to induce specific **monoclonal** anti-idiotypic **antibodies**. Specific anti-idiotypic **antibodies** were assessed for their ability to induce in vivo protective immunity against toxicity.

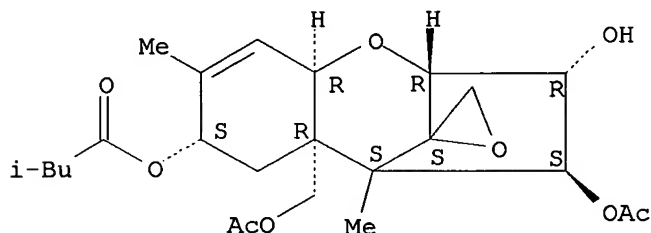
IT 21259-20-1, T2 Toxin

RL: BIOL (Biological study)  
(anti-idiotypic-based vaccines against)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 21 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:245598 HCAPLUS

DOCUMENT NUMBER: 114:245598

TITLE: **Immunological** approach to the identification  
and development of vaccines to various toxins

AUTHOR(S): Chanh, T. C.; Armstrong, D.; Kennedy, R. C.

CORPORATE SOURCE: Southwest Found. Biomed. Res., San Antonio, TX, USA

SOURCE: Report (1990), Order No. AD-A225374, 56 pp. Avail.:  
NTISFrom: Gov. Rep. Announce. Index (U. S.) 1990, 90(24),  
Abstr. No. 063,999

DOCUMENT TYPE:

Report

LANGUAGE:

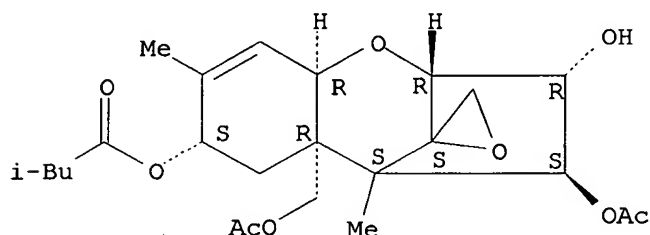
English

AB **Monoclonal antibodies** of relatively high binding  
affinity consts. specific for the sodium channel blockers saxitoxin and  
tetrodotoxin, and the synthesis inhibitor mycotoxin T-2 were generated.

Two **monoclonal antibodies** against saxitoxin and 2 against tetrodotoxin were isolated and shown to inhibit the binding of saxitoxin and tetrodotoxin, resp., to rat brain cell membrane. They were also effective in protecting against the saxitoxin and tetrodotoxin-induced redn. of peripheral nerve action potentials in rat tibial nerve when administered in situ. Polyclonal rabbit and **monoclonal** anti-idiotypic **antibodies** have been generated and characterized. An IgG1k mAb specific for T-2 was also generated. This **antibody**, termed HD11 (IgG1), completely protected the human cell lines Hep-2 and KB against .times.-2-induced cytotoxicity.

IT 21259-20-1, Mycotoxin T-2  
 RL: BIOL (Biological study)  
 (vaccines against, **antibodies** in relation to)  
 RN 21259-20-1 HCAPLUS  
 CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 22 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1991:227205 HCAPLUS  
 DOCUMENT NUMBER: 114:227205  
 TITLE: Production and characterization of **antibodies**  
 against nivalenol tetraacetate  
 AUTHOR(S): Wang, Cheng Rui; Chu, Fun S.  
 CORPORATE SOURCE: Food Res. Inst., Univ. Wisconsin, Madison, WI, 53706,  
 USA  
 SOURCE: Applied and Environmental Microbiology (1991), 57(4),  
 1026-30  
 CODEN: AEMIDF; ISSN: 0099-2240  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB **Antibody** against nivalenol tetraacetate (tetra-Ac-NIV) was prepd. by immunization of rabbits with triacetyl-15-pimelate-NIV conjugated to **bovine serum** albumin. By using tritiated tetra-Ac-NIV as the test ligand, **antibody** titers were demonstrated as early as 4 wk after immunization. Useful **antibody** for RIA (RIA) of tetra-Ac-NIV was obtained 7 wk after immunization, with one booster injection. Results of competitive RIA revealed that the **antibody** was most specific to tetra-Ac-NIV. The relative cross-reactivity of this **antibody** with tetra-Ac-NIV, deoxynivalenol triacetate, and neosolaniol triacetate was found to be 100, 2.2, and <1, resp. Practically no cross-reaction was found with deoxynivalenol, fusarenon X, and NIV. The detection limit for tetra-Ac-NIV by RIA was about 5.0 ng/mL (0.5 ng per assay). The use of this **antibody** for quantitation of NIV in cereals after

acetylation of sample exts. is proposed.

IT **14287-83-3**, Nivalenol tetraacetate

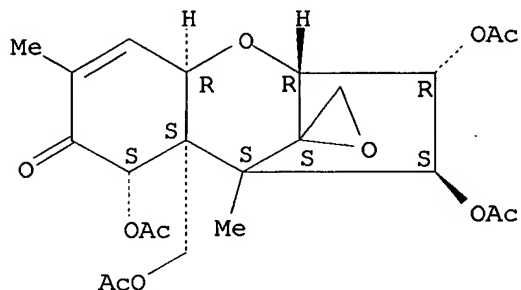
RL: BIOL (Biological study)

(**monoclonal antibody** specific for, prepn. and characterization of)

RN 14287-83-3 HCAPLUS

CN Trichothec-9-en-8-one, 3,4,7,15-tetrakis(acetyloxy)-12,13-epoxy-, (3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **51550-28-8**, Deoxynivalenol triacetate

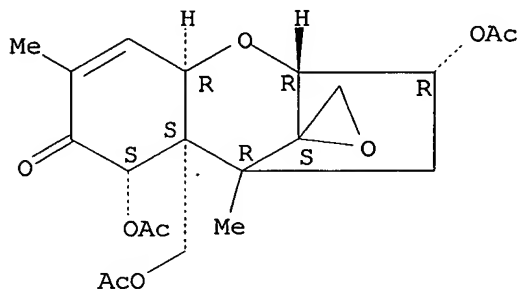
RL: BIOL (Biological study)

(**monoclonal antibody** to nivalenol cross-reactivity with)

RN 51550-28-8 HCAPLUS

CN Trichothec-9-en-8-one, 3,7,15-tris(acetyloxy)-12,13-epoxy-, (3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 23 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:604492 HCAPLUS

DOCUMENT NUMBER: 113:204492

TITLE: Antitumor activity of T-2 toxin-conjugated **monoclonal antibody** to murine thymoma

AUTHOR(S): Ohtani, Katsumi; Murakami, Hiroshi; Shibuya, Osamu; Kawamura, Osamu; Ohi, Keiji; Chiba, Joe; Otokawa, Minoru; Ueno, Yoshio

CORPORATE SOURCE: Fac. Pharm. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE: Japanese Journal of Experimental Medicine (1990),

60(2), 57-65

CODEN: JJEMAG; ISSN: 0021-5031

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB T-2 toxin (T-2), one of the trichothecene mycotoxins produced by various gerera of *Fusarium* spp., is a potent inhibitor of the syntheses of protein and DNA in mammalian cells. The selective cytotoxicity of T-2 toxin-conjugated anti-EL-4 **monoclonal antibodies** (T-2-mAb) was investigated against murine thymoma EL-4 cells in vitro and in vivo systems. At first T-2 was converted to T-2 hemiglutarate by glutaric anhydride. Then T-2 hemiglutarate was activated to 3-[4-(N-succinimidoxycarbonyl)-butyryl]-T-2 (T-2-G-OSu) by N-hydroxysuccinimide. Thus obtained T-2-G-OSu was conjugated with mAb specific for EL-4 cells. The T-2-mAb markedly inhibited the proliferation of cultured EL-4 cells, but no such cytotoxic effect was obsd. against irrelevant SP2/0 cells. The cytotoxicity of T-2-conjugated normal gamma globulin (T-2-nGG) against EL-4 cells was far less than that of the above T-2-mAb. Ammonium chloride and monensin, inhibitors of lysosomal enzymes, enhanced the cytotoxicity of T-2-mAb. The presence of both 2-deoxyglucose together with sodium azide, inhibitors of energy-dependent reaction, reduced the cytotoxicity of T-2-mAb. Therefore, the selective binding to the target cells followed by an energy-dependent endocytosis and an intracellular liberation of T-2 by hydrolysis may account for the cytotoxicity of the T-2-mAb. In mice pre-transplanted with EL-4 cells, T-2-mAb increased the mean survival time with a direct dosage dependence. The present in vitro and in vivo expts. suggest a possible use of T-2 as an **immunotoxin** for cancer chemotherapy.

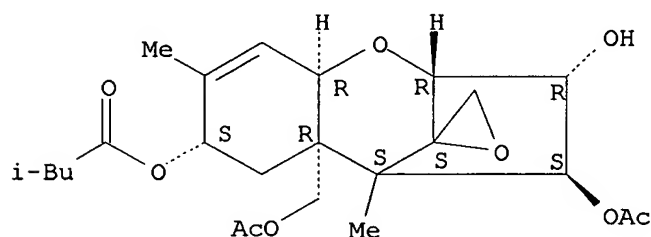
IT 21259-20-1D, T-2 Toxin, **monoclonal antibody** conjugates

RL: BIOL (Biological study)  
(thymoma inhibition by)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 24 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:513450 HCAPLUS

DOCUMENT NUMBER: 113:113450

TITLE: Monoclonal anti-idiotypic induces protection against the cytotoxicity of the trichothecene mycotoxin T-2

AUTHOR(S): Tran Cong Chanh; Rappocciolo, Giovanna; Hewetson, John F.

CORPORATE SOURCE: Dep. Virol. Immunol., Southwest Found. Biomed. Res., San Antonio, TX, 78284, USA

SOURCE: Journal of Immunology (1990), 144(12), 4721-8  
CODEN: JOIMA3; ISSN: 0022-1767

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An IgG1 mAb, designated HD11, specific for the trichothecene mycotoxin T-2 and capable of neutralizing its cytotoxicity was used to generate a syngeneic **monoclonal anti-Id antibody**. The generated anti-Id mAb, designated DE8, specifically bound to HD11 anti-T-2 mAb, and not to IgG1 mAb of irrelevant specificity or to normal mouse **Ig**. DE8 inhibited the binding of HD11 anti-T-2 to T-2-**BSA**-coated plates, whereas a control anti-Id mAb did not, suggesting recognition of an Id determinant assocd. with the T-2 binding site of HD11. Moreover, the binding of HD11 to DE8 and that of DE8 to HD11 were specifically inhibited by free T-2 mycotoxin. DE8 mAb was efficient in abrogating the protective effect of HD11 in the cytotoxicity of T-2 on the human epidermoid carcinoma cell line Hep-2. In vivo immunization of BALB/c mice with DE8 conjugated to **KLH** induced an anti-T-2 **antibody** titer comparable to that obtained with T-2-**OVA** immunization, whereas immunization with unconjugated DE8 resulted in a lower titered anti-T-2 response. Immunization with DE8-**keyhole** limpet or with unconjugated DE8 induced anti-T-2 **antibody** responses characterized by expression of HD11-like Id and by protection against T-2 cytotoxicity. However, the T-2-**OVA**-induced anti-T-2 response lacked the HD11+ Id and was only partially protective against T-2 cytotoxicity. This demonstrates the use of an anti-Id based vaccine in the in vivo induction of a protective **antibody** response against the cytotoxicity of a nonproteinaceous, small m.w. biol. toxin, whose very toxic nature precludes its use as the **immunogen**.

IT 21259-20-1

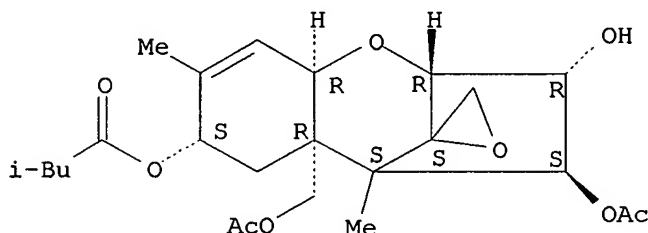
RL: PRP (Properties)

(cytotoxicity of, **monoclonal antiidiotypic antibody**  
protection against, vaccine in relation to)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 25 OF 50 HCAPLUS<sup>®</sup> COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:117472 HCAPLUS

DOCUMENT NUMBER: 112:117472

TITLE: **Monoclonal antibody**-based enzyme  
linked **immunosorbent** assay of aflatoxin B1,  
T-2 toxin, and ochratoxin A in barley

AUTHOR(S): Ramakrishna, Nannapaneni; Lacey, John; Candlish, Alan  
A. G.; Smith, John E.; Goodbrand, Ian A.



CORPORATE SOURCE: Inst. Arable Crops Res., AFRC, Harpenden/Herts., AL5 2JG, UK

SOURCE: Journal - Association of Official Analytical Chemists (1990), 73(1), 71-6  
CODEN: JANCA2; ISSN: 0004-5756

DOCUMENT TYPE: Journal

LANGUAGE: English

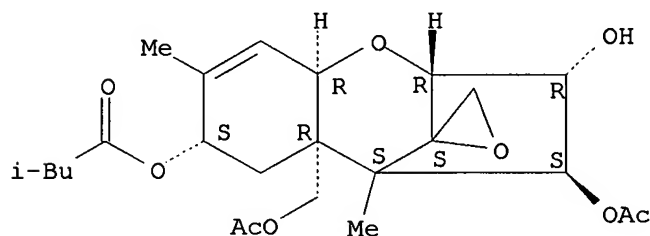
AB Aflatoxin B1 (B1), T-2 toxin (T2), and ochratoxin A (OA) were assayed in a single ext. from barley grain by using competitive enzyme linked **immunosorbent** assay (ELISA) with **monoclonal antibodies**. B1 and T2 **monoclonal antibodies** were conjugated to **horseradish** peroxidase for direct competitive ELISA and an indirect competitive ELISA was used for OA detn. The competitive ELISA detected 0.1 ng/mL B1, 10 ng/mL T2, and 1 ng/mL OA. MeCN-0.5% KCl-6% H2SO4 (89:10:1) exts. of barley grain either were dild. 1:10 for direct assay or were subjected to a simple liq.-liq. cleanup procedure to conc. the ext. 10:1 before assay. For cleanup, H2O was added to the MeCN ext. to partition water-sol. interfering substances, and then the mycotoxins were reextd. with CHCl3. The CHCl3 ext. was evapd. to dryness and redissolved in Tris-HCl buffer for ELISA. The mean recoveries from barley spiked with 4-60 ng/g B1, 50-5000 ng/g T2, and 5-500 ng/g OA were 93.8, 80.6, and 95.8%, resp. The mean within-assay, inter-assay, and subsample relative std. deviations by ELISA of barley grain colonized with toxigenic fungi were <12% for B1 and OA but as high as 17% for T2.

IT **21259-20-1**, T-2 Toxin  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in barley by ELISA with **monoclonal antibodies**)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 26 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:31759 HCAPLUS

DOCUMENT NUMBER: 112:31759

TITLE: A **monoclonal antibody**-based enzyme **immunoassay** for the ~~de~~ detection of T-2 toxin at picogram levels

AUTHOR(S): Hack, R.; Maertlbauer, E.; Terplan, G.

CORPORATE SOURCE: Vet. Fac., Univ. Munich, Munich, 8000/22, Fed. Rep. Ger.

SOURCE: Letters in Applied Microbiology (1989), 9(4), 133-5  
CODEN: LAMIE7; ISSN: 0266-8254

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Thirteen **monoclonal antibodies** reactive with HT 2 toxin were prep'd. by using a HT-2 hemisuccinate coupled to human serum albumin as **antigen** for the immunization of BALB/c mice. In a competitive EIA on a double **antibody** solid phase using HT 2 hemisuccinate coupled to **horseradish** peroxidase as enzyme-linked toxin, all **antibodies** reacted much better with T 2 toxin and acetyl T 2 than with HT 2. Eleven **antibodies** showed almost the same sensitivity and specificity, and one of these, designated 3E2, is extensively described. Its cross-reactivities with HT 2, T 2 toxin, acetyl T 2, iso T 2, T 2 tetraol tetraacetate and T 2 triol were 1.0, 140.2, 161.2, 0.32, 0.14 and 0.016, resp. Two other **antibodies**, designated 2A4 and 2A5, behaved quite differently. The cross-reactivities of **antibody** 2A4 with these toxins were: 1.0, 113.9, 374.4, 1.35, 0.34 and 0.023, resp.; for **antibody** 2A5 they were 1.0, 46.1, 155.4, 8.31, 0.9 and 0.08, resp. All **antibodies** proved to be IgG1. By using the **antibody** 3E2 a highly sensitive and very specific enzyme **immunoassay** for the detection of T 2 toxin was developed. The detection limit for T 2 toxin was 5 pg/mL (0.25 pg/assay).

IT 21259-20-1, Toxin T 2

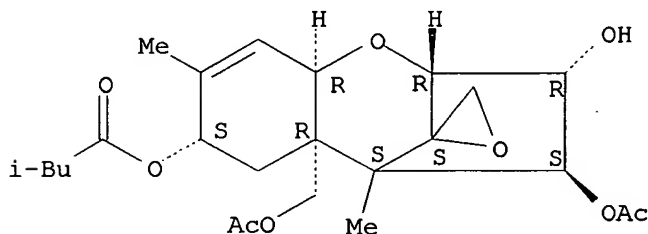
RL: BIOL (Biological study)

(**monoclonal antibodies** IgG1 against toxin HT 2 in EIA of)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 21259-21-2, Acetyl toxin T-2 26934-87-2, Toxin HT-2

114753-65-0, Isotoxin T 2

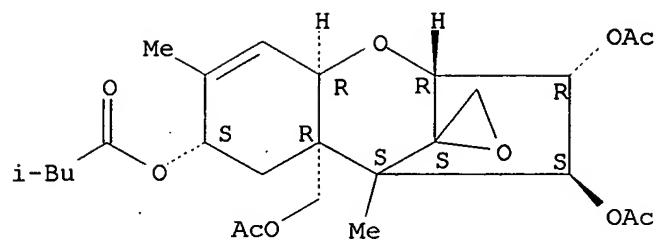
RL: BIOL (Biological study)

(**monoclonal antibodies** IgG1 against toxin HT-2 in EIA of toxin T 2 in relation to)

RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

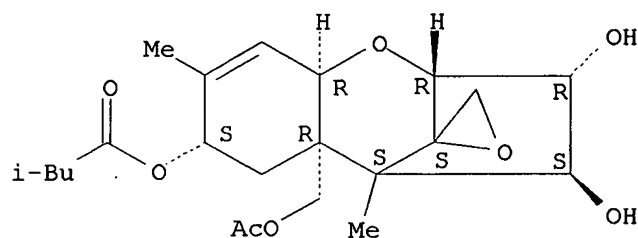
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

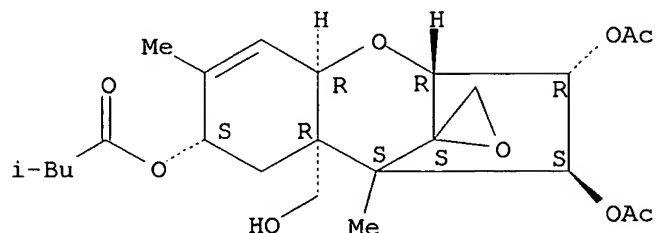
Absolute stereochemistry.



RN 114753-65-0 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 27 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:589420 HCAPLUS

DOCUMENT NUMBER: 111:189420

TITLE: Method and test kit for detecting trichothecene  
mycotoxin T-2 using novel **monoclonal**  
**antibodies**

INVENTOR(S): Hart, L. Patrick; Pestka, James J.; Gendloff, Elie H.

PATENT ASSIGNEE(S): Neogen Corp., USA

SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4772551	A	19880920	US 1985-813499	19851226

PRIORITY APPLN. INFO.: US 1985-813499 19851226

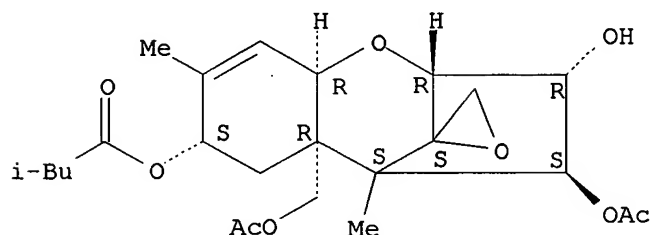
AB **Monoclonal antibodies** to trichothecene mycotoxin T-2 are produced by the hybridoma method and used in a test kit and **immunoassay** for T-2. BALB/C mice were immunized s.c. with T-2 hemisuccinate-bovine serum albumin conjugate (0.5-1 mg/mL saline), the spleen cells were fused with myeloma cells, and hybrid cells producing the desired **antibody** were cloned and selected. The T-2 **monoclonal antibody** was used in an ELISA for T-2 toxin in samples of wheat and corn in which the grains were ground, extd. with MeOH:H<sub>2</sub>O (40:60), and filtered, and the filtrate was mixed with T-2-horseradish peroxidase conjugate and incubated 10 min in T-2 **monoclonal antibody**-coated microtiter wells. Enzyme was detected with ABTS.

IT **21259-20-1**, Mycotoxin T-2  
RL: BIOL (Biological study)  
(detection of and **monoclonal antibody** to)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

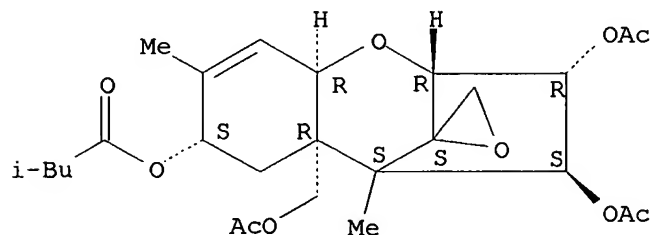


IT **21259-21-2 26934-87-2**, Mycotoxin HT-2 **69999-76-4**  
RL: BIOL (Biological study)  
(**monoclonal antibody** to mycotoxin T-2 response to)

RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

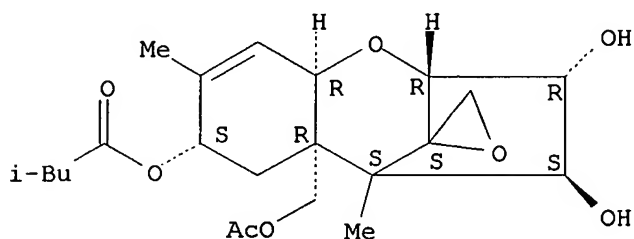


RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate

8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

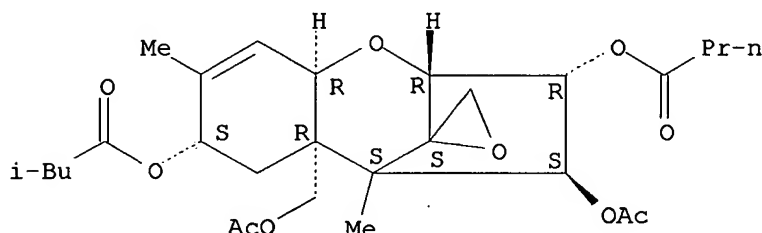
Absolute stereochemistry.



RN 69999-76-4 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 3-butanoate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 28 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:568810 HCAPLUS

DOCUMENT NUMBER: 111:168810

TITLE: Anti-idiotypic **antibodies** against a **monoclonal antibody** specific for the trichothecene mycotoxin T-2

AUTHOR(S): Chanh, Tran C.; Huot, Rachel I.; Schick, Michael R.; Hewetson, John F.

CORPORATE SOURCE: Dep. Virol. Immunol., Southwest Found. Biomed. Res., San Antonio, TX, 78284, USA

SOURCE: Toxicology and Applied Pharmacology (1989), 100(2), 201-7

CODEN: TXAPA9; ISSN: 0041-008X

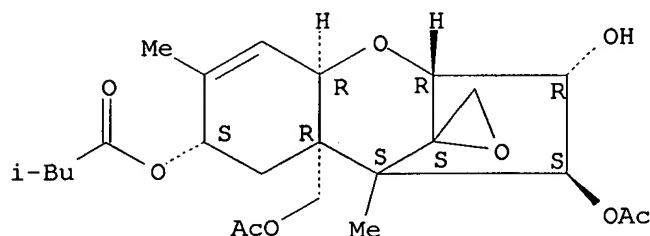
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A BALB/c murine **monoclonal antibody** against mycotoxin T 2 was generated. The **antibody**, designated HD11, specifically bound T 2 mycotoxin. The binding of HD11 to T 2 conjugated to **bovine serum** albumin was inhibited by free T 2 toxin but not by the water-sol. heterocyclic guanidines saxitoxin and tetrodotoxin. The T 2 detection limit in ELISA with HD11 was in the nanogram range. The in vitro cytotoxicity of T 2, as measured by the inhibition of radiolabeled leucine uptake of the human epidermoid carcinoma Hep-2 and KB cell lines, was completely reversed by the addn. of HD11. Rabbit antiidiotypic **antibodies** specific for HD11 were generated and characterized.

IT 21259-20-1, Mycotoxin T-2  
 RL: BIOL (Biological study)  
 (antiidiotypic **antibodies** against **monoclonal antibodies** against, ELISA of T 2 toxin in relation to)  
 RN 21259-20-1 HCAPLUS  
 CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 29 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1989:512038 HCAPLUS  
 DOCUMENT NUMBER: 111:112038  
 TITLE: Repetitive hit-and-run **immunoassay** and stable support-analyte conjugates, and application to T-2 toxin detection  
 INVENTOR(S): Giese, Roger W.; Warden, Beverly; Kariman, Allam; Ehrat, Markus; Cecchini, Douglas J.; Sentissi, Abdellah  
 PATENT ASSIGNEE(S): Northeastern University, USA  
 SOURCE: U.S., 28 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4801726	A	19890131	US 1986-852144	19860415
PRIORITY APPLN. INFO.:			US 1986-852144	19860415
OTHER SOURCE(S): MARPAT 111:112038				

AB A repetitive **immunoassay** anal. method for detn. of a free analyte is carried out by loading an affinity column of covalently bound analyte with tagged **antibody**, passing a continuous aq. stream of carrier liq. over the column, introducing an aliquot of a sample to be analyzed for free analyte into the carrier stream upstream of the column, and monitoring the eluting carrier stream for a signal spike resulting from the presence of tagged **antibody** material released from the column by the application of free analyte in the anal. sample. A Supelclean filtration column was packed with T-2 mycotoxin-adipic acid hydrazide-agarose affinity gel (prepn. given), equilibrated with 0.01 M Tris-HCl (pH 7.5), and loaded with the fluorescein conjugate of anti-T-2 **monoclonal antibody** Fab' fragment. The column was washed with buffer until the fluorescence signal returned to preloading levels. Samples of T-2 in buffer were applied to the column. Once the

sample completely entered the gel bed the flow was stopped for 5 min. After the incubation period, flow was resumed and the fluorescence signal of released conjugate was measured. T-2 to 1 ng could be measured.

IT 21259-20-1, T-2 Mycotoxin

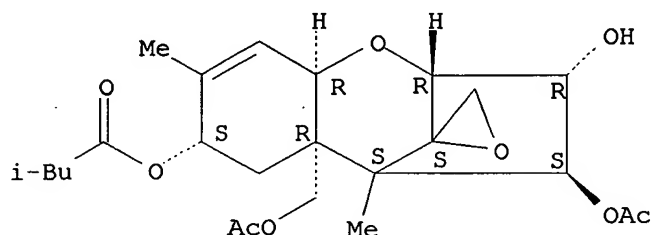
RL: ANT (Analyte); ANST (Analytical study)

(detr. of, by support-bound analyte and labeled **antibody** affinity chromatog. in analyte **immunoassay**, immobilized T-2 mycotoxin for)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 21259-20-1DP, T-2 Mycotoxin, adipic acid hydrazide-agarose gel reaction products

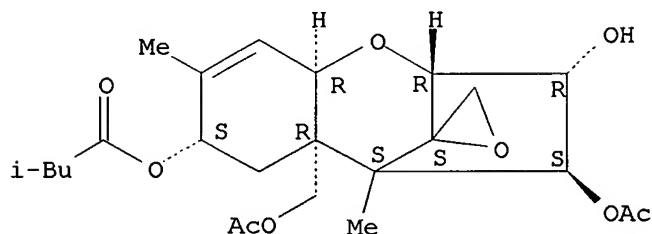
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, for support-bound analyte and labeled **antibody** affinity chromatog. in analyte **immunoassay**)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 30 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:229768 HCAPLUS

DOCUMENT NUMBER: 110:229768

TITLE: **A monoclonal antibody** to the trichothecene mycotoxin diacetoxyscirpenol

AUTHOR(S): Hack, R.; Klaffer, U.; Terplan, G.

CORPORATE SOURCE: Vet. Fac., Univ. Munich, Munich, 8000/22, Fed. Rep. Ger.

SOURCE: Letters in Applied Microbiology (1989), 8(2), 71-5

CODEN: LAMIE7; ISSN: 0266-8254

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A **monoclonal antibody** to the trichothecene mycotoxin diacetoxyscirpenol (DAS) was produced by a hybridoma, designated 2E5. It secreted **antibody** of the IgG1 subclass; by using this **antibody** the detection limit for DAS was 16 ng/mL in a direct enzyme **immunoassay** on a double **antibody** solid phase. The relative cross-reactivities with 3.alpha.-acetyl-DAS, diacetylverrucarol, neosolaniol, T-2 tetrol tetraacetate, fusarenon X, T-2 toxin, and HT-2 were 2224.5, 53.7, 13.9, 9.2, 6.4, 1.7, 0.6, and 0.35%, resp.

IT 21259-20-1, T-2 Toxin 23255-69-8, Fusarenon X  
26934-87-2, HT-2

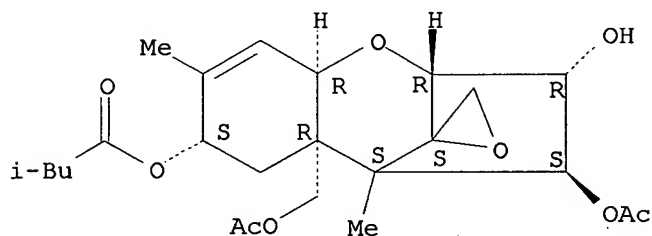
RL: BIOL (Biological study)

(**monoclonal antibody** to diacetoxyscirpenol cross-reactivity with)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

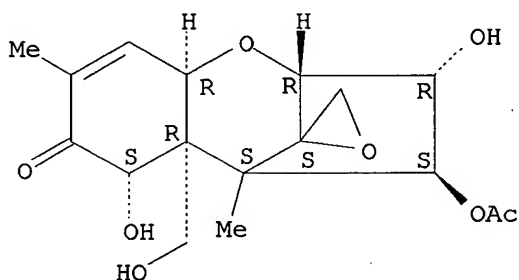
Absolute stereochemistry.



RN 23255-69-8 HCAPLUS

CN Trichothec-9-en-8-one, 4-(acetyloxy)-12,13-epoxy-3,7,15-trihydroxy-,  
(3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

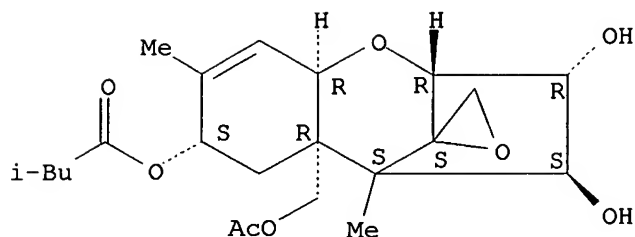


RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L41 ANSWER 31 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:171854 HCAPLUS

DOCUMENT NUMBER: 110:171854

TITLE: Studies on chemical analysis of mycotoxin. XIX.

Enzyme **immunoassay** of T-2 toxin in foods

AUTHOR(S): Isohata, Etsuko; Toyoda, Masatake; Saito, Yukio

CORPORATE SOURCE: Natl. Inst. Hyg. Sci., Tokyo, 158, Japan

SOURCE: Eisei Shikensho Hokoku (1988), (106), 117-20

CODEN: ESKHA5; ISSN: 0077-4715

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB T-2 toxin enzyme **immunoassay** (EIA) test kits with T-2 toxin

**monoclonal antibody**-coated plates were evaluated by recovery tests with several food types. T-2 toxin levels .gtoreq.15 ppb could be detected in artificially contaminated foods by EIA within 1 h (without prepurifn.). The simplicity, sensitivity, and specificity of the EIA should make it the preferred method for monitoring T-2 toxin in foods.

IT 21259-20-1, T-2 Toxin

RL: ANT (Analyte); ANST (Analytical study)

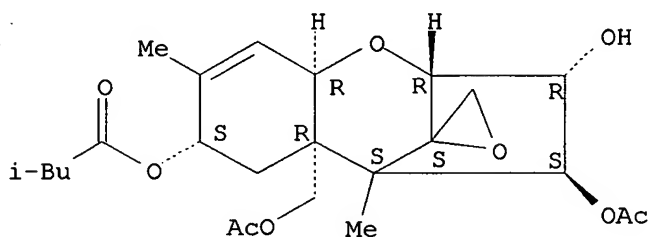
(detn. of, in food by enzyme **immunoassay**)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate

8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 32 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:90279 HCAPLUS

DOCUMENT NUMBER: 110:90279

TITLE: Production and characterization of a

**monoclonal antibody** cross-reactive with most group A trichothecenes

AUTHOR(S): Fan, T. S. L.; Schubring, S. L.; Wei, R. D.; Chu, F. S.

CORPORATE SOURCE: Food Res. Inst., Univ. Wisconsin, Madison, WI, 53706,

USA  
 SOURCE: Applied and Environmental Microbiology (1988), 54(12),  
 2959-63  
 CODEN: AEMIDF; ISSN: 0099-2240  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

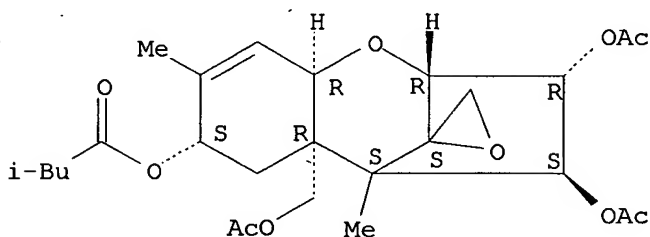
AB A **monoclonal antibody** cross-reactive with most group A trichothecenes was produced by fusion of P3/NS-1/1-AG4-1 myeloma cells with spleen cells isolated from a BALB/c mouse that had been immunized with 3-acetylneosolaniolhemisuccinate conjugated to **bovine serum** albumin. One stable clone, H159B1D5, which produced **monoclonal antibody** that bound with both T 2 toxin and diacetoxyscirpenol (DAS) was obtained after subcloning. ELISA revealed that the **antibody** belongs to the IgG1 (kappa chain) isotype and had binding consts. of 2.81 .times. 10<sup>9</sup>, 1.05 .times. 10<sup>9</sup>, and 1.57 .times. 10<sup>8</sup> L per mol for T 2 tetraol tetraacetate, T 2 toxin, and DAS, resp. The relative cross-reactivities of the **antibody** with T 2 tetraol tetraacetate, T 2 toxin, and DAS were 200, 100, and 20, resp., with tritiated T 2 toxin as the marker ligand. The relative cross-reactivities for the above toxins were 667, 100, and 73, resp., with tritiated DAS as the marker ligand. No cross-reaction with HT 2 and deoxynivalenol triacetate was obsd. in either system. By using this **monoclonal antibody**, an indirect ELISA for anal. of T 2 toxin was also developed. The linear portion of the std. curve for anal. of T 2 toxin in each anal. by RIA and ELISA was in the range 0.1-2 ng and 0.05-1.0 ng, resp.

IT 21259-21-2 26934-87-2, HT 2 toxin 51550-28-8,  
 Deoxynivalenol triacetate  
 RL: BIOL (Biological study)  
 (monoclonal antibody cross-reactivity in relation  
 to)

RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

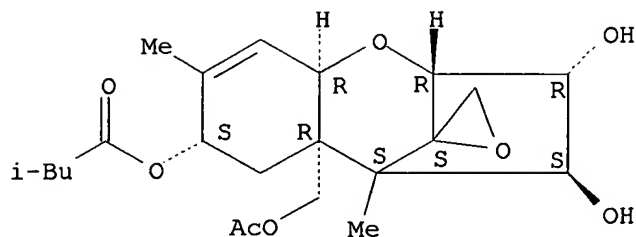
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

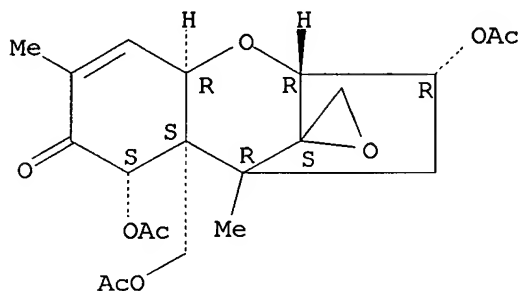
Absolute stereochemistry.



RN 51550-28-8 HCAPLUS

CN Trichothec-9-en-8-one, 3,7,15-tris(acetyloxy)-12,13-epoxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 21259-20-1, T 2 Toxin

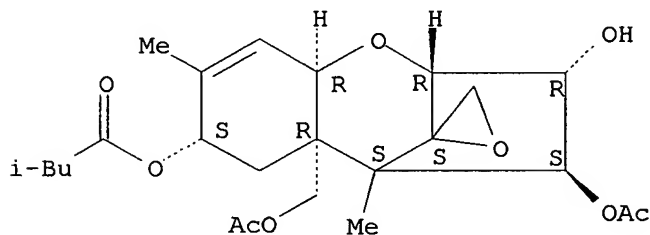
RL: BIOL (Biological study)

(**monoclonal antibody** to, prodn. and  
characterization of, detn. in relation to)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 33 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:52419 HCAPLUS

DOCUMENT NUMBER: 110:52419

TITLE: Hit-and-run **immunoassay** for T-2 toxin

AUTHOR(S): Giese, R. W.; Allam, K. I.; Cecchini, D. J.; Ehrat,  
M.; Guan, K. L.

CORPORATE SOURCE: Barnett Inst. Chem. Anal. Mater. Sci., Northeast.  
Univ., Boston, MA, USA

SOURCE: Report (1988), CONTRIB-307, ARO-24152.6-LS; Order No. AD-A191937, 50 pp. Avail.: NTIS  
From: Gov. Rep. Announce. Index (U. S.) 1988, 88(16), Abstr. No. 842,075

DOCUMENT TYPE: Report

LANGUAGE: English

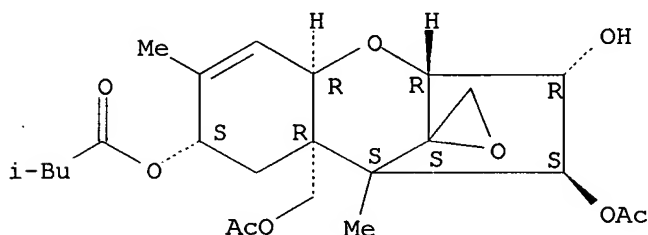
AB A sensitive and accurate **immunoassay** is described for T 2 toxin anal. in environment samples. A **monoclonal antibody** for T-2 toxin is converted to a Fab'-fluorescein deriv. The latter is specifically complexed onto a T-2 agarose gel. Fifteen successive doses of T-2 ranging from 1 to 50 ng are then repetitively and linearly detected using a column packed with a small vol. (0.2 mL) of this gel without recharging with Fab'-fluorescein. For these assays the effluent from the column is monitored with a spectrofluorometer.

IT **21259-20-1, T-2 Toxin**  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in environmental samples by **immunoassay**)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 34 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:624110 HCAPLUS

DOCUMENT NUMBER: 109:224110

TITLE: A sensitive enzyme-linked **immunosorbent** assay for detection of T-2 toxin with **monoclonal antibodies**

AUTHOR(S): Chiba, Joe; Kawamura, Osamu; Kajii, Hiroshi; Otani, Katsumi; Nagayama, Satoshi; Ueno, Yoshio

CORPORATE SOURCE: Dep. Pathol., Natl. Inst. Health, Tokyo, 141, Japan

SOURCE: Food Additives & Contaminants (1988), 5(4), 629-39  
CODEN: FACOEB; ISSN: 0265-203X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Six **monoclonal antibodies** (mAbs, T-2.1, 2, 3, 4, 5, and 6) which react with a trichothecene mycotoxin, T 2 toxin (T-2), were prepd. All **antibodies** specifically reacted with T-2 but less (0.5% of T-2) with the metabolites such as HT 2 toxin and 3'-hydroxy-T 2 toxin. Significant but less than 0.02% cross-reactivity was obsd. with T 2 triol, 3'-hydroxy-HT 2 toxin, and neosolaniol. No significant reaction with other trichothecenes such as deoxynivalenol, nivalenol, fusarenon-X, crotocin, or roridin A was obsd. The least detectable amt. of T-2 with the best mAb T-2.1 was 2.5 pg T-2 per assay. This specific and highly sensitive assay for T-2 was applied for the quantitation of T-2 in wheat

flour spiked with mycotoxin in combination with a simple extn. procedure.

IT **21259-20-1**, Toxin T-2

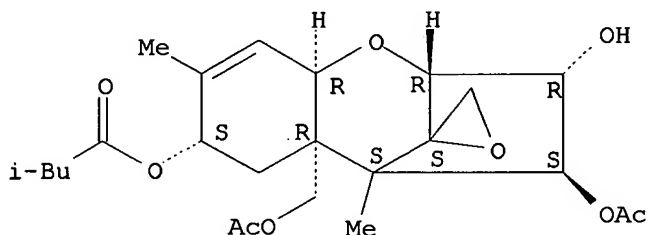
RL: ANT (Analyte); ANST (Analytical study)

(detn. of, in wheat flour, by ELISA, **monoclonal antibodies** in relation to)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **23255-69-8**, Fusarenon-X **26934-87-2**, HT-2 toxin

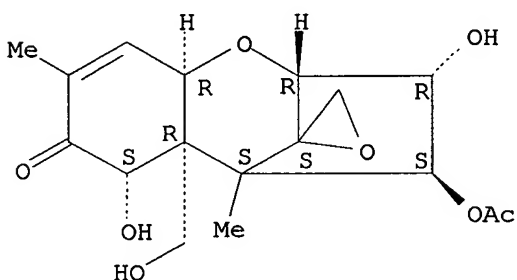
RL: BIOL (Biological study)

(**monoclonal antibodies** to toxin T-2 cross reactivity with)

RN 23255-69-8 HCAPLUS

CN Trichothec-9-en-8-one, 4-(acetyloxy)-12,13-epoxy-3,7,15-trihydroxy-,  
(3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

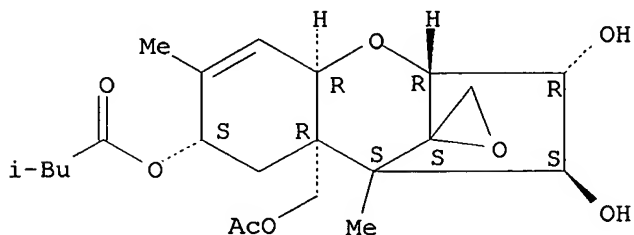
Absolute stereochemistry.

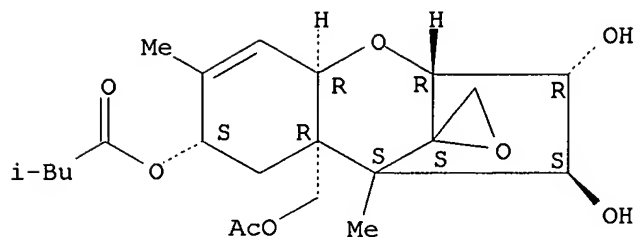


RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L41 ANSWER 35 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:487817 HCAPLUS

DOCUMENT NUMBER: 109:87817

TITLE: Production and characterization of a

**monoclonal antibody** to the  
trichothecene mycotoxin diacetoxyscirpenol

AUTHOR(S): Pauly, Josef Urban; Bitter-Suermann, Dieter; Dose, Klaus

CORPORATE SOURCE: Inst. Med. Mikrobiol., Johannes Gutenberg-Univ.,  
Mainz, Fed. Rep. Ger.

SOURCE: Biological Chemistry Hoppe-Seyler (1988), 369(6),  
487-92

CODEN: BCHSEI; ISSN: 0177-3593

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A **monoclonal antibody** was obtained by the fusion of mouse myeloma cells with splenocytes isolated from Balb/c mice, which had been immunized with diacetoxyscirpenol-hemiglutarate (DAS-hemiglutarate) and verrucarol-hemiglutarates covalently bound to ethylenediamine-modified **bovine serum** albumin. The anti-DAS-**antibody** that could be induced was of the IgM type with .kappa.-chains. The titer of the **monoclonal anti-DAS-antibody** in ascites fluid obtained from mice injected with the selected cell line was much higher than those of conventional antisera. An ELISA based on the competitive binding principle in which the **antibody** was applied had a sensitivity of 1 ng DAS/assay. The relative cross-reactivity of the **monoclonal antibody** in the CI-ELISA with the related trichothecenes such as triacetoxyscirpenol, 15-monoacetoxyscirpenol, diacetylverrucarol, 4-monoacetoxyscirpenol, and scirpentriol were 1.8, 0.8, 0.15, 0.02, and <0.001, resp. The trichothecenes verrucarol, T 2 toxin, T 2 tetraol, deoxynivalenol, 3-acetyldeoxynivalenol, and trichothecin showed no cross-reactivity.

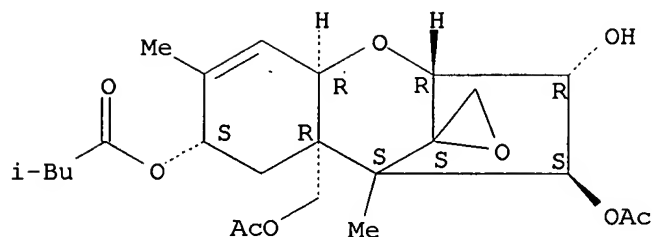
IT 21259-20-1, Toxin T2 50722-38-8, 3-Acetyldeoxynivalenol

RL: BIOL (Biological study)  
(trichothecene mycotoxin **monoclonal antibody**  
cross-reactivity with)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

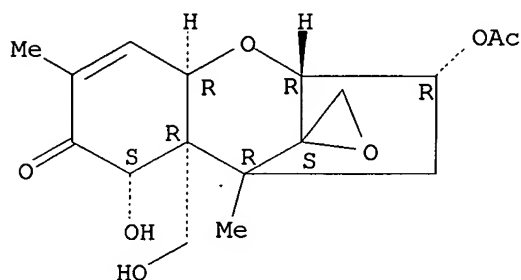
Absolute stereochemistry.



RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 36 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:433710 HCAPLUS

DOCUMENT NUMBER: 109:33710

TITLE: Reagent and method for mycotoxin **immunoassay**INVENTOR(S): Uda, Taizo; Itoh, Yukikatsu; Nishimura, Minoru;  
Hifumi, Emi; Sudou, Kasumi; Ueno, Yoshio

PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan

SOURCE: Fr. Demande, 28 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2601781	A1	19880122	FR 1987-10038	19870716
FR 2601781	B1	19930212		
JP 63153468	A2	19880625	JP 1987-149258	19870617
GB 2193809	A1	19880217	GB 1987-16804	19870716
CN 87105154*	A	19880203	CN 1987-105153	19870717
PRIORITY APPLN. INFO.:			JP 1986-167851	19860718
			JP 1987-149258	19870617

AB An enzyme-labeled anti-mycotoxin **monoclonal antibody** is used in a competitive **immunoassay** of mycotoxins, e.g. in food products. The enzyme is peroxidase, alk. phosphatase, .beta.-galactosidase, etc. and the mycotoxin is produced by Penicillium, Aspergillus, or Fusarium. Ochratoxin A (OTA) of Aspergillus was detd. by

reacting microtiter plates with OTA-bovine serum albumin conjugate, blocking unreacted groups with bovine serum, incubating with peroxidase-labeled anti-OTA monoclonal antibody and OTA sample for 30 min, washing, adding substrate soln. (o-phenylenediamine and H<sub>2</sub>O), and measuring absorbance at 500 nm after stopping the enzymic reaction with H<sub>2</sub>SO<sub>4</sub>. The detn. took .apprx.1 h and 52 pg OTA could be detd.

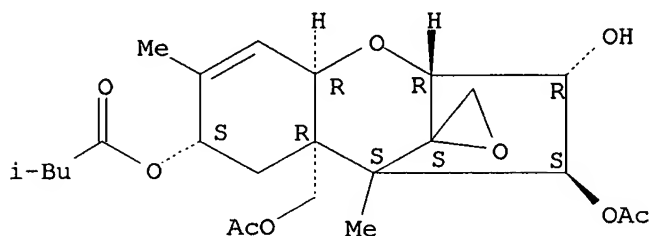
IT 21259-20-1

RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, by enzyme immunoassay)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 37 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:405339 HCAPLUS

DOCUMENT NUMBER: 109:5339

TITLE: A monoclonal antibody to the trichothecene T-2 toxin: screening for the antibody by a direct enzyme immunoassay

AUTHOR(S): Hack, R.; Maertlbauer, E.; Terplan, G.

CORPORATE SOURCE: Tieraerztl. Fak., Univ. Muenchen, Munich, D-8000/40, Fed. Rep. Ger.

SOURCE: Journal of Veterinary Medicine, Series B (1987), 34(7), 538-44

CODEN: JVMBE9; ISSN: 0931-1793

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new method for the screening of monoclonal antibodies to mycotoxins was developed using a double antibody solid phase in a direct enzyme immunoassay. Wells of microtiter plates were coated with affinity-purified anti-mouse IgG antiserum. The monoclonal antibody against the trichothecene T-2 toxin bound to this solid phase was detected by reaction with an HT-2 toxin-peroxidase conjugate. The monoclonal antibody belongs to the IgG1 subclass and has a detection limit for T-2 toxin of 50 ng/mL in a competitive direct enzyme immunoassay. The relative cross-reactivity with acetyl T-2, HT-2, iso T-2, T-2 triol and T-2 tetraol-tetraacetate was 0.75, 0.35, 0.35, 0.22 and 0.01, resp. No cross-reactions with other trichothecenes could be found.

IT 21259-20-1, Toxin T-2 21259-21-2 26934-87-2,

Toxin HT-2 114753-65-0

RL: ANT (Analyte); ANST (Analytical study)

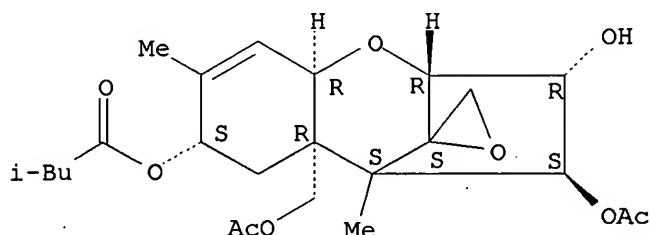


(detn. of, toxin T-2 **monoclonal antibody** for,  
direct enzyme **immunoassay** for screening of)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

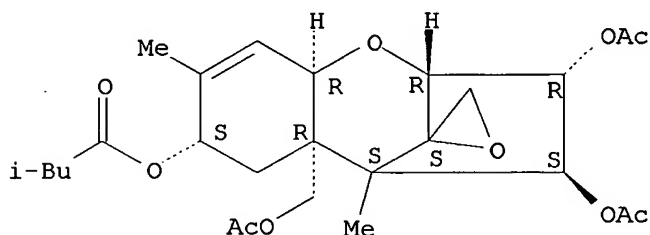
Absolute stereochemistry.



RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

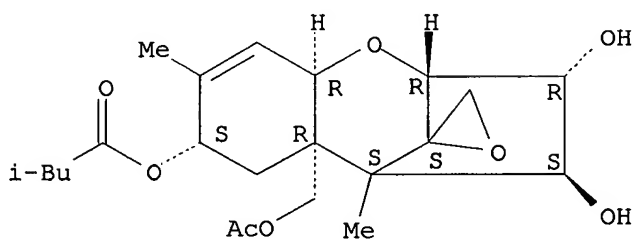
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

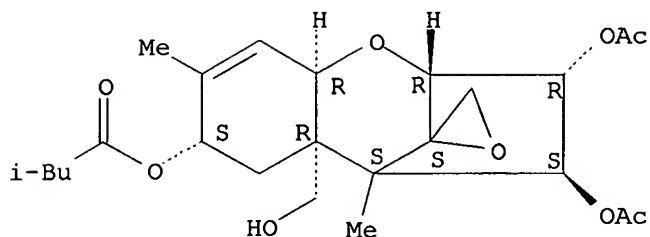
Absolute stereochemistry.



RN 114753-65-0 HCAPLUS

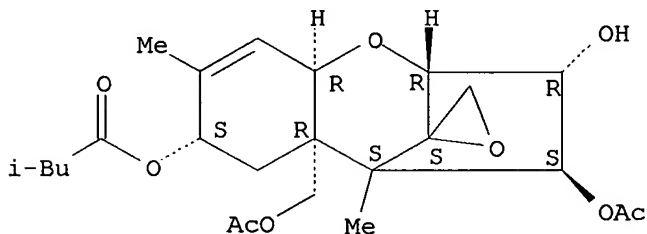
CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 38 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1988:401923 HCAPLUS  
 DOCUMENT NUMBER: 109:1923  
 TITLE: Application of an enzyme-linked **immunosorbent** assay for screening of T-2 toxin-producing *Fusarium* spp  
 AUTHOR(S): Nagayama, Satoshi; Kawamura, Osamu; Otani, Katsumi; Ryu, Jae Chun; Latus, Dorota; Sudheim, Leif; Ueno, Yoshio  
 CORPORATE SOURCE: Fac. Pharm. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan  
 SOURCE: Applied and Environmental Microbiology (1988), 54(5), 1302-3  
 CODEN: AEMIDF; ISSN: 0099-2240  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Culture filtrates of *Fusarium* species were subjected without clean-up procedure to an indirect competitive ELISA with anti-T 2 toxin **monoclonal antibody**. *F. sporotrichioides*, *F. poae*, *F. tricinctum*, And *F. culmorum* strains were pos. for T 2 toxin, with a min. decrease limit of 5 pg/assay (100 pg/mL of culture filtrate), and the assay data correlated well with the gas-liq. chromatog. data.  
 IT **21259-20-1**, T 2 Toxin  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in *Fusarium* by ELISA)  
 RN 21259-20-1 HCAPLUS  
 CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

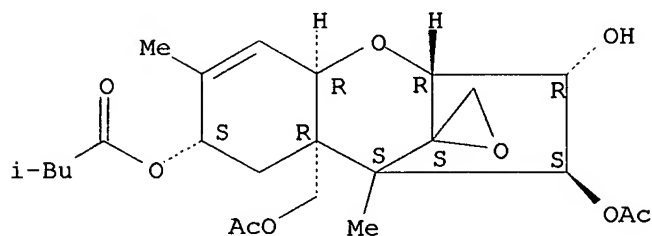
Absolute stereochemistry.



L41 ANSWER 39 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1988:203358 HCAPLUS  
 DOCUMENT NUMBER: 108:203358  
 TITLE: Enzyme-linked **immunosorbent** assay employing **monoclonal antibody** specific for

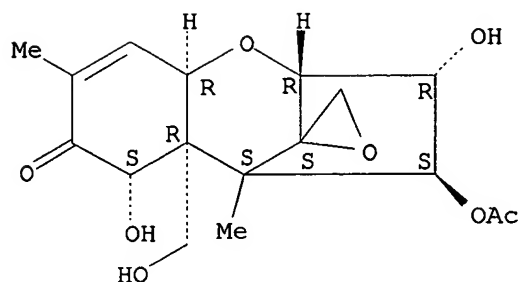
deoxynivalenol (vomitoxin) and several analogs  
 AUTHOR(S): Casale, William L.; Pestka, James J.; Hart, L. Patrick  
 CORPORATE SOURCE: Pestic. Res. Cent., Michigan State Univ., East  
 Lansing, MI, 48824, USA  
 SOURCE: Journal of Agricultural and Food Chemistry (1988),  
 36(3), 663-8  
 CODEN: JAFCAU; ISSN: 0021-8561  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A **monoclonal antibody** was prepd. against  
 deoxynivalenol (DON, vomitoxin), a trichothecene mycotoxin occurring in  
 grain contaminated with *Gibberella zeae* (anamorph - *Fusarium graminearum*),  
 and incorporated into competitive direct and indirect enzyme-linked  
**immunosorbent** assays (ELISAs). DON **antibodies** were  
 secreted by hybridomas derived from mice inoculated with DON conjugated to  
**bovine serum** albumin. Conjugation of DON to carrier  
 proteins was facilitated by conversion of DON to 3-O-hemisuccinyl-DON  
 after protection of 2 of the 3 available hydroxyls with a cyclic boronate  
 ester. DON was detectable at 10-250 ng/assay (0.2-5.0 .mu.g/mL) for  
 direct ELISA and 10-150 ng/assay (0.2-2.0 .mu.g/mL) for indirect ELISA.  
 The **monoclonal antibody** cross-reacts with  
 3-acetyl-DON, 3-O-hemisuccinyl-DON, DON, 12-13-deepoxy-DON, nivalenol, and  
 fusarenone X (in order of decreasing affinity) but has low affinity for  
 15-acetyl-DON and T-5 toxin.  
 IT 21259-20-1, T-2 Toxin 23255-69-8, Fusarenone X  
 50722-38-8, 3-Acetyldeoxynivalenol 88337-96-6,  
 15-Acetyldeoxynivalenol 113507-96-3  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, by ELISA)  
 RN 21259-20-1 HCAPLUS  
 CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 23255-69-8 HCAPLUS  
 CN Trichothec-9-en-8-one, 4-(acetyloxy)-12,13-epoxy-3,7,15-trihydroxy-,  
 (3.alpha.,4.beta.,7.alpha.)- (9CI) (CA INDEX NAME)

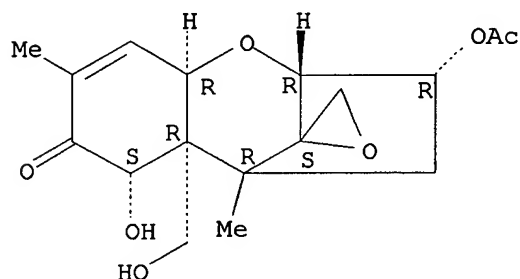
Absolute stereochemistry.



RN 50722-38-8 HCAPLUS

CN Trichothec-9-en-8-one, 3-(acetyloxy)-12,13-epoxy-7,15-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

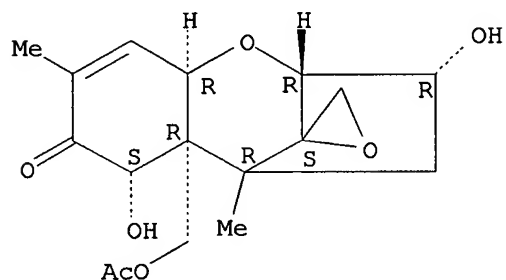
Absolute stereochemistry.



RN 88337-96-6 HCAPLUS

CN Trichothec-9-en-8-one, 15-(acetyloxy)-12,13-epoxy-3,7-dihydroxy-,  
(3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

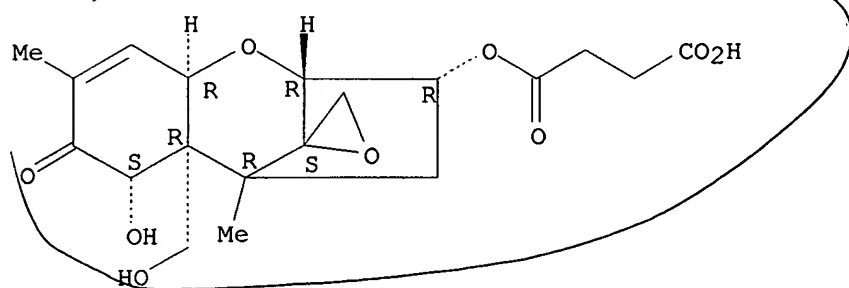
Absolute stereochemistry.



RN 113507-96-3 HCAPLUS

CN Trichothec-9-en-8-one, 3-(3-carboxy-1-oxopropoxy)-12,13-epoxy-7,15-  
dihydroxy-, (3.alpha.,7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 40 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:89067 HCAPLUS

DOCUMENT NUMBER: 108:89067

TITLE: A **monoclonal antibody** to T-2 toxin

AUTHOR(S): Goodbrand, I. A.; Stimson, W. H.; Smith, J. E.

CORPORATE SOURCE: Dep. Biosci. Biotechnol., Univ. Strathclyde, Glasgow, F4 ONR, UK

SOURCE: Letters in Applied Microbiology (1987), 5(5), 97-9

CODEN: LAMIE7; ISSN: 0266-8254

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A specific, high-affinity **monoclonal antibody** to T-2 toxin was prepd. The **antibody** was conjugated to **horseradish** peroxidase and employed to develop a direct competitive ELISA for the toxin. The sensitivity of the ELISA was 10 ng/mL with a working range up to 500 ng/mL. The **antibody** cross-reacted with HT-2 toxin (25%), but did not bind to any other trichothecene tested.

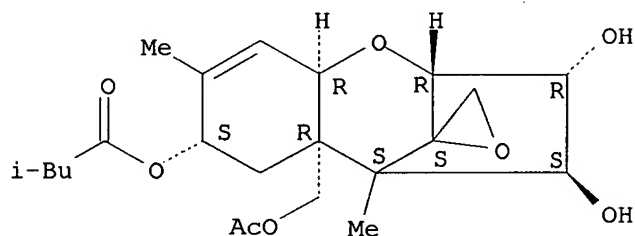
IT 26934-87-2, Toxin HT 2

RL: BIOL (Biological study)  
(**monoclonal antibodies** against toxin T-2  
crossreaction with)

RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



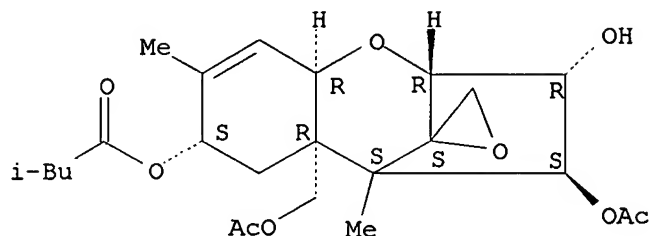
IT 21259-20-1, Toxin T 2

RL: BIOL (Biological study)  
(**monoclonal antibodies** against, ELISA of)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 41 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:70397 HCAPLUS

DOCUMENT NUMBER: 108:70397

TITLE: Preparation and characterization of the deepoxy trichothecenes: deepoxy HT-2, deepoxy T-2 triol, deepoxy T-2 tetraol, deepoxy 15-monoacetoxyscirpenol, and deepoxy scirpentriol

AUTHOR(S): Swanson, S. P.; Rood, H. D., Jr.; Behrens, J. C.; Sanders, P. E.

CORPORATE SOURCE: Dep. Vet. Biosci., Univ. Illinois, Urbana, IL, 61801, USA

SOURCE: Applied and Environmental Microbiology (1987), 53(12), 2821-6

CODEN: AEMIDF; ISSN: 0099-2240

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The prodn. of deepoxys metabolites of the trichothecene mycotoxins T 2 toxin (I), and diacetoxyscirpenol, including deepoxy HT 2 (DE HT-2), deepoxy T 2 triol, deepoxy T 2 tetraol, deepoxy 15-monoacetoxyscirpenol, and deepoxy scirpentriol is described. The metabolites were prepd. by in vitro fermn. with bovine rumen microorganisms under anaerobic conditions and purified by normal and reversed-phase high-pressure liq. chromatog. Capillary gas chromatog. retention times and mass spectra for the derivatized metabolites were obtained. The deepoxy metabolites were less toxic to brine shrimp than were the corresponding epoxy analogs. Polyclonal and **monoclonal T 2 antibodies** were examd. for cross-reactivity to several T 2 metabolites. Both HT 2 and DE HT 2 cross-reacted with mouse **immunoglobulin monoclonal antibody** 15H6 to a greater extent than did I. Rabbit polyclonal T 2 **antibodies** displayed greater specificity to I compared with the **monoclonal antibody**, with relative cross-reactivities of only 17.4, 14.6, and 9.2% for HT 2, DE HT 2, and deepoxy T 2 triol, resp. Cross-reactivity of both **antibodies** was weak for T 2 triol, T 2 tetraol, 3'OH-T 2, and 3'OH-HT 2.

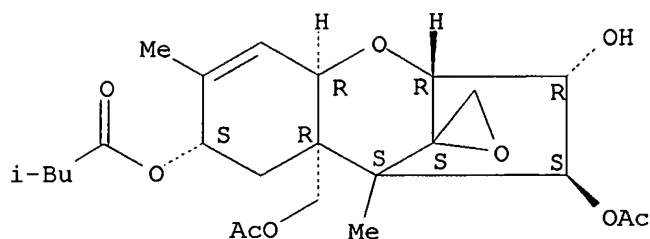
IT 21259-20-1 21259-20-1D, T 2 Toxin, metabolites 26934-87-2

RL: PRP (Properties)  
(characterization of)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

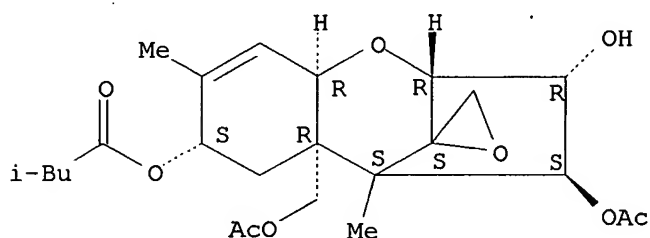
Absolute stereochemistry.



RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

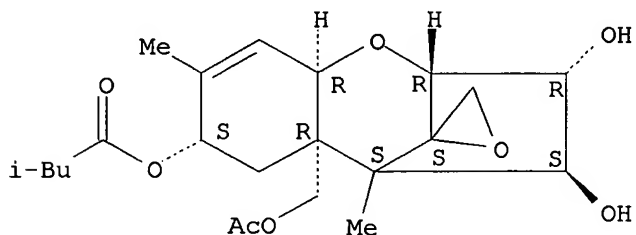
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 42 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:36393 HCAPLUS

DOCUMENT NUMBER: 108:36393

TITLE: Detection of T-2 toxin with an enzyme-linked  
**immunosorbent** assay. Application to wheat  
samples and T-2 toxin-producing fungiAUTHOR(S): Nagayama, Satoshi; Sato, Sukemi; Kawamura, Osamu;  
Ohtani, Katsumi; Ueno, Yoshio

CORPORATE SOURCE: Fac. Pharm. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE: Mycotoxins (1987), 25, 40-2  
CODEN: MAIKD3; ISSN: 0285-1466

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

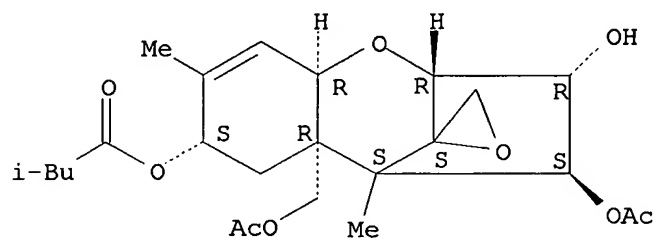
AB A simple and high sensitive ELISA method using **monoclonal antibody** for quantitation of T-2 toxin (T-2) was developed and applied to anal. of wheat samples and screening of T-2-producing fungi. This ELISA did not require extensive cleanup steps before anal. and many samples could be analyzed at one time. The data were confirmed with gas chromatog. The detection limit for T-2 was 0.1 ppb by ELISA, which was 100-fold more sensitive than gas chromatog.-mass spectrometry.

IT **21259-20-1**, T-2 Toxin  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in wheat and fungal cultures, by ELISA)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 43 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:630612 HCAPLUS

DOCUMENT NUMBER: 107:230612

TITLE: ELISA of mycotoxins with **monoclonal antibodies**

AUTHOR(S): Ueno, Yoshio; Ohtani, Katsumi; Kawamura, Osamu; Nagayama, Satoshi

CORPORATE SOURCE: Fac. Pharm. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE: Tanpakushitsu Kakusan Koso, Bessatsu (1987), (31), 80-9

CODEN: TKKBBT; ISSN: 0371-8565

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review, with 45 refs., on ELISA with **monoclonal antibody** of mycotoxins including aflatoxins, T-2 toxin, and zearalenone.

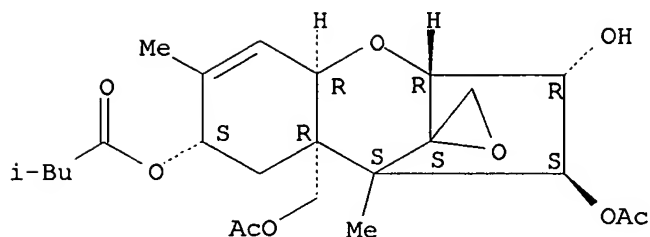
IT **21259-20-1**, Toxin T 2  
RL: PROC (Process)  
(ELISA of, with **monoclonal antibodies**)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



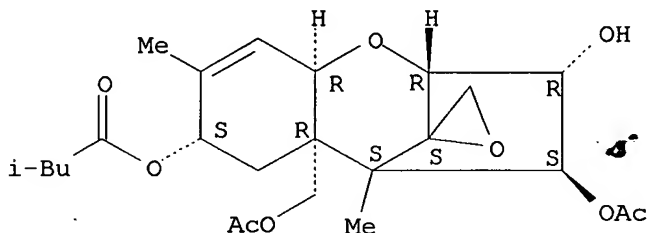


L41 ANSWER 44 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1987:629142 HCAPLUS  
 DOCUMENT NUMBER: 107:229142  
 TITLE: Stimulation of defenses of biological systems using  
 toxic substances  
 INVENTOR(S): Berdal, Pascal  
 PATENT ASSIGNEE(S): Fr.  
 SOURCE: Fr. Demande, 25 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2584294	A1	19870109	FR 1985-10403	19850708
FR 2584294	B1	19920221		

PRIORITY APPLN. INFO.: FR 1985-10403 19850708  
 AB The defenses of biol. systems are augmented by administration of at least two substances chosen among: **immunodepressants**, **immunotoxins**, cytotoxins, cytostatics, and/or **immunomodulators** (no data). A synergistic effect occurs as these toxic substances stimulate the biol. system.  
 IT **21259-20-1**, T2 Toxin  
 RL: BIOL (Biological study)  
 (stimulation of defenses of biol. systems using)  
 RN 21259-20-1 HCAPLUS  
 CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 45 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1987:491348 HCAPLUS

DOCUMENT NUMBER: 107:91348  
 TITLE: A homogeneous **immunoassay** for the mycotoxin T-2 utilizing liposomes, **monoclonal antibodies**, and complement  
 AUTHOR(S): Ligler, Frances S.; Bredehorst, Reinhard; Talebian, Abdolhossen; Shriver, Lisa C.; Hammer, Charles F.; Sheridan, James P.; Vogel, Carl Wilhelm; Gaber, Bruce P.  
 CORPORATE SOURCE: Bio/Mol. Eng. Branch, Nav. Res. Lab., Washington, DC, 20375-5000, USA  
 SOURCE: Analytical Biochemistry (1987), 163(2), 369-75  
 CODEN: ANBCA2; ISSN: 0003-2697  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A homogeneous competition inhibition assay for T-2 mycotoxin (I) was developed based on complement-mediated lysis of liposomes. I was converted to an acid chloride deriv., subsequently coupled to the amino group of phosphatidylethanolamine, and incorporated with the phospholipid into unilamellar liposomes. Carboxyfluorescein, which is self-quenched at high concns., was entrapped in the liposomes as a release marker. A **monoclonal IgG1 antibody** specific for I and a polyclonal anti-mouse **Ig** as a secondary **antibody** were used since the anti-I IgG1 does not activate complement, releasing carboxyfluorescein into the surrounding buffer. In the presence of free I, the binding of **antibodies** to the liposomes was reduced, causing a corresponding decrease in lysis. This assay proved to be sensitive to I levels as low as 2 ng, which is 10-fold more sensitive than the present enzyme **immunoassay** using the same **antibodies**.

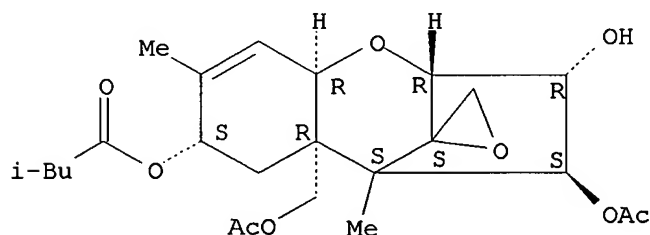
IT 21259-20-1, Toxin T 2

RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, by an **immunoassay**-lysosome lysis technique, complement in relation to)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 46 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:418929 HCAPLUS

DOCUMENT NUMBER: 107:18929

TITLE: Tresyl activation of a hydroxyalkyl ligand for coupling to a hydrazide gel: stable immobilization of T-2 toxin for affinity purification of T-2 **antibody**

AUTHOR(S): Allam, Kariman I.; Ehrat, Markus; Cecchini, Douglas;

WARDEN, Beverly A.; GIESE, Roger W.  
 CORPORATE SOURCE: Coll. Pharm., Northeast. Univ., Boston, MA, 02115, USA  
 SOURCE: Analytical Biochemistry (1987), 162(1), 171-7  
 CODEN: ANBCA2; ISSN: 0003-2697

DOCUMENT TYPE: Journal  
 LANGUAGE: English

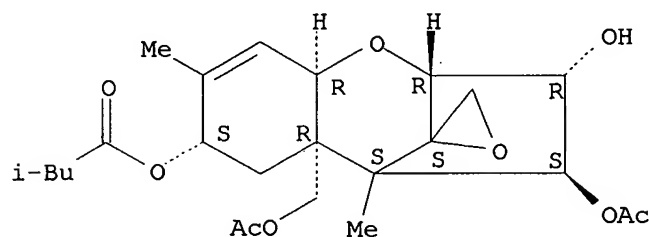
AB A stable T-2 hydrazide gel is prepd. by activating T-2 toxin (I) with tresyl chloride followed by coupling to agarose-adipic acid hydrazide. Utilized as an affinity chromatog. column, this T-2 hydrazide gel purifies a **monoclonal antibody** for T-2 in high yield directly from ascites fluid. Specific **antibody** trapped on the column is eluted either with excess T-2 or at pH 11.6. Much less successful are 2 other T-2 affinity columns that were prepd. and evaluated: T-2 **bovine serum** albumin Affi-Gel 15 and T-2 hexylamine Sepharose.

IT **21259-20-1**, T-2 Toxin  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with tresyl chloride, **monoclonal antibody** purifn. in relation to)

RN **21259-20-1** HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 47 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:170670 HCAPLUS

DOCUMENT NUMBER: 106:170670

TITLE: Production of a **monoclonal antibody** to T-2 toxin with strong cross-reactivity to T-2 metabolites

AUTHOR(S): Gendloff, E. H.; Pestka, J. J.; Dixon, D. E.; Hart, L. P.

CORPORATE SOURCE: Dep. Bot. Plant Pathol., Michigan State Univ., East Lansing, MI, 48824, USA

SOURCE: Phytopathology (1987), 77(1), 57-9  
 CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A **monoclonal antibody** against T2 toxin (I) [**21259-20-1**] was produced using a mouse immunized by s.c. injections into the shoulder with large **immunogen** doses. When this **antibody** was used in an indirect competitive enzyme immunoassay, sensitivity to I was 10 ng/mL (0.5 ng/assay). The **antibody** cross-reacted less to HT2 toxin [**26934-87-2**] than T-2 **antibodies** previously described. Strong cross-reaction

with the T-2 metabolites 3'-hydroxy T2 toxin [84474-35-1] and 3'-hydroxy HT 2 toxin [84474-35-1] was noted.

IT **21259-20-1D**, T 2 Toxin, metabolites **21259-21-2**

**26934-87-2**, HT2 toxin

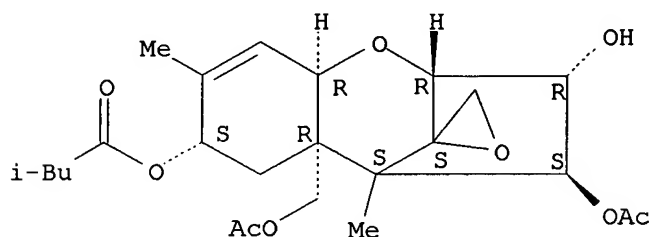
RL: BIOL (Biological study)

(T 2 toxin **monoclonal antibodies** cross-reaction with)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

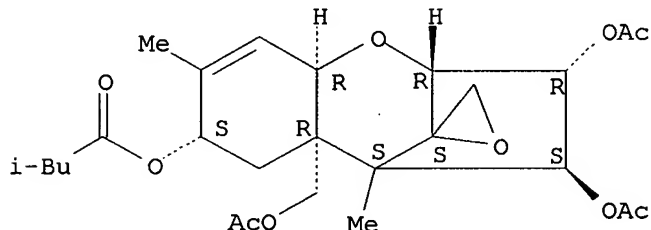
Absolute stereochemistry.



RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

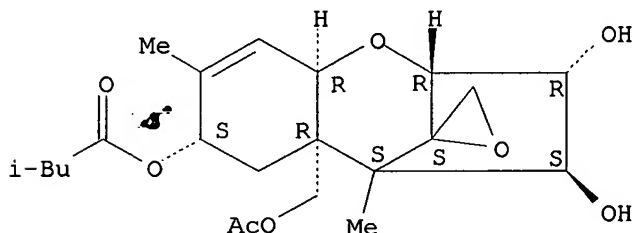
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **21259-20-1**, T2 Toxin

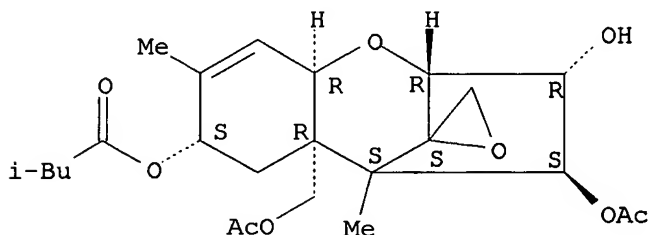
RL: BIOL (Biological study)

(**monoclonal antibodies** to, metabolite  
cross-reactivity in relation to)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 48 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:118016 HCAPLUS

DOCUMENT NUMBER: 106:118016

TITLE: **Monoclonal antibody** to T-2 toxin  
and its use in the determination of T-2 toxin

INVENTOR(S): Ueno, Yoshio

PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61229899	A2	19861014	JP 1985-69170	19850403
JP 05043358	B4	19930701		

PRIORITY APPLN. INFO.: JP 1985-69170 19850403

AB Anti-T-2 toxin **monoclonal antibody** manuf. involves:  
immunization of mice with T-2 toxin, isolation of lymphocytes from the  
mice, and fusion of the lymphocytes with cells to form hybridomas for the  
prodn. of the **monoclonal antibody**. The  
**monoclonal antibody** is useful in the **immunoassay**  
of T-2 toxin (no specific assay example is given).

IT 21259-20-1

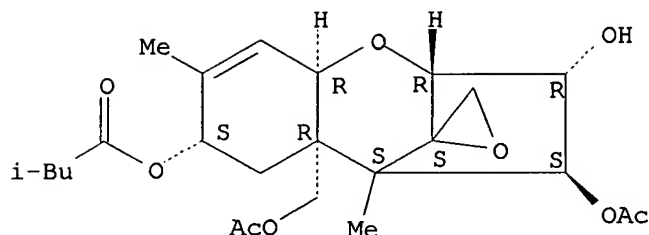
RL: PROC (Process)

(**monoclonal antibodies** to and **immunoassay**  
of)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 49 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1986:604218 HCAPLUS

DOCUMENT NUMBER: 105:204218

TITLE: Development of enzyme-linked **immunosorbent** assay (ELISA) for T 2 toxin using **monoclonal antibodies**

AUTHOR(S): Ohtani, Katsuki; Kawamura, Osamu; Kajii, Hiroshi; Chiba, Jo; Ueno, Yoshio

CORPORATE SOURCE: Fac. Pharm. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE: Mycotoxins (1985), 22, 31-2

CODEN: MAIKD3; ISSN: 0285-1466

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two **monoclonal antibodies** (7D4, 6E9) reactive with toxin T 2 (I) [21259-20-1] were prepd. The **antibody** 7D4 was also reactive with I hemisuccinate and acetyl I [21259-21-2], but less reactive with toxin HT 2 [26934-87-2], 3'-OH-I [84474-35-1], and 3'-OH-toxin HT 2 [103654-63-3]. By using the **antibody** 7D4 in the indirect competitive ELISA method, the least detectable limit for I was .apprx.25 pg/assay.

IT 21259-20-1 21259-20-1D, hemisuccinate deriv.

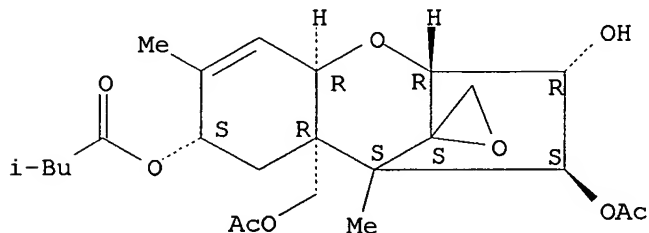
21259-21-2 26934-87-2

RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, by ELISA, **monoclonal antibodies** in)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

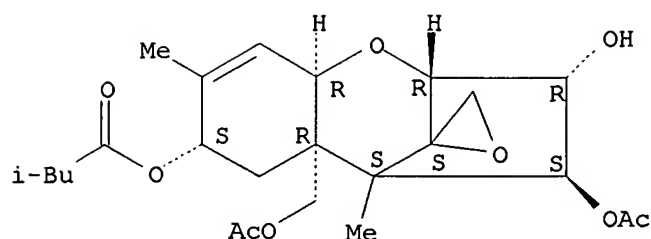
Absolute stereochemistry.



RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

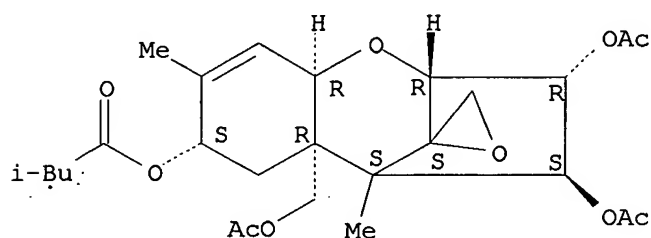
Absolute stereochemistry.



RN 21259-21-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 3,4,15-triacetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

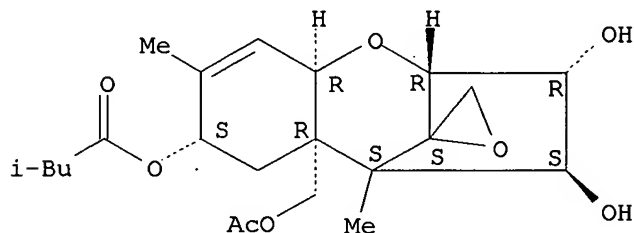
Absolute stereochemistry.



RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate  
8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 50 OF 50 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1985:76957 HCAPLUS

DOCUMENT NUMBER: 102:76957

TITLE: Preparation and characterization of **monoclonal antibodies** to the trichothecene mycotoxin T-2AUTHOR(S): Hunter, Kenneth W., Jr.; Brimfield, Alan A. ~~Miller~~, Maryalice; Finkelman, Fred D.; Chu, Sun Fun

CORPORATE SOURCE: F. Edward Hebert Sch. Med., Uniformed Serv. Univ. Health Sci., Bethesda, MD, 20814-4799, USA

SOURCE: Applied and Environmental Microbiology (1985), 49(1), 168-72

CODEN: AEMIDF; ISSN: 0099-2240

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two mouse IgG1 **monoclonal antibodies** that bind to the trichothecene mycotoxin T-2 were prepd. These **antibodies**, designated 12C12 and 15H6, had affinities for T-2 of 3.5 .times. 10<sup>6</sup> and 5.8 .times. 10<sup>7</sup> L/mol, resp. A competitive inhibition enzyme **immunoassay** that employed these **antibodies** had a sensitivity for T-2 of 50 ng/assay. Both **antibodies** bound to the metabolite HT-2 but not to the related trichothecenes monoacetoxyscirpenol, diacetoxyscirpenol, deoxynivalenol, and deoxyverrucarol. Evidence is presented that T-2 protein conjugates inhibit protein synthesis in lymphoid cells and that this apparent **immunotoxicity** may be due to the release of T-2 from the protein carrier.

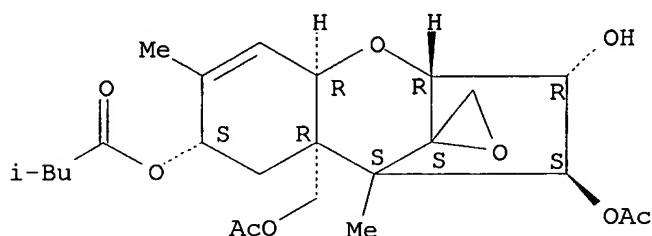
IT 21259-20-1 21259-20-1D, albumin conjugates

RL: BIOL (Biological study)  
(**monoclonal antibodies** to and protein formation inhibition by)

RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

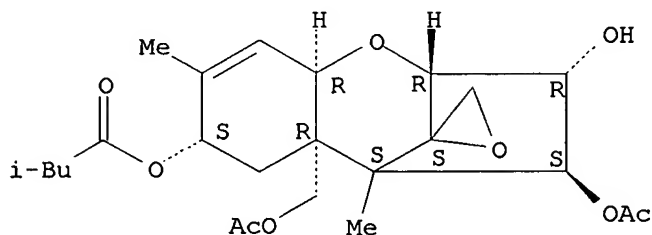
Absolute stereochemistry.



RN 21259-20-1 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 26934-87-2\*

RL: BIOL (Biological study)  
(mycotoxin T2-specific **monoclonal antibodies** cross-reactivity with, protein formation inhibition in relation to)

RN 26934-87-2 HCAPLUS

CN Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 15-acetate 8-(3-methylbutanoate), (3.alpha.,4.beta.,8.alpha.)- (9CI) (CA INDEX NAME)



Absolute stereochemistry.

